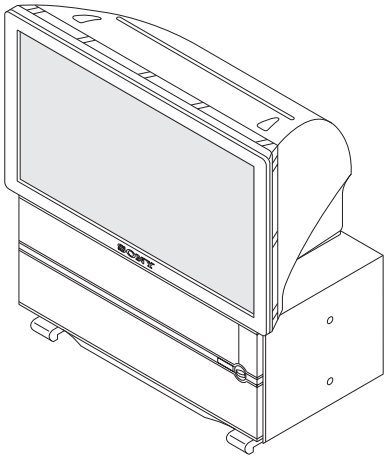
Self Diagnosis Supported model

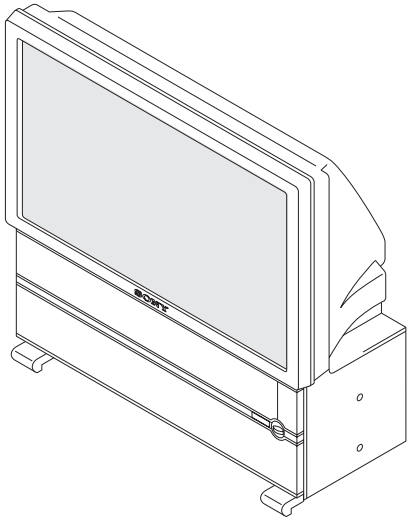
SERVICE MANUAL RE-3W CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KP-44PS2	RM-903	AEP	SCC-P38E-A
KP-44PS2U	RM-903	UK	SCC-P64A-A
KP-51PS2	RM-903	AEP	SCC-P38D-A

RM-903



KP-44PS2/44PS2U



KP-51PS2

∗ Please file according to model size. ...□

44 51

PROJECTION TV

SONY®

SPECIFICATIONS

TV system
B/G/H, D/K, I, L

Colour system
PAL, SECAM
NTSC 3.58, 4.43 (only Video In)

Channel coverage
VHF: E2-E12
UHF: E21-E69
CATV: S1-S20
HYPER: S21-S41
D/K: R1-R12, R21-R69
I: UHF B21-B69
L: F2-F10, B-Q, F21-F69

Projected picture size
KP-44PS2/44PS2U:
44 inches (approx. 112 measured diagonally).
KP-51PS2:
51 inches (approx. 130 measured diagonally).

Rear Terminals
- ◁ ←C– Centre speaker input terminals (2 terminals)
- (L, R) audio outputs (phono jacks)
- 1/ 21-pin Euro connector (CENELEC standard) including audio/video input, RGB input, TV audio/video output.
- 2/ 2 (SMARTLINK) 21-pin Euro connector (CENELEC standard) including audio/video input, S video input, selectable audio/video output and Smartlink interface.
- 3/ 3 21-pin Euro connector (CENELEC standard) including audio/video input, S video input, audio/video output (monitor out).

Front Terminals
- 4 S video input - 4 pin DIN
- 4 video input - phono jack
- 4 audio inputs - phono jacks
- Headphones jack - minijack stereo

Sound output
2 x 30 W (music power)
2 x 15 W (RMS)

Centre SP input
30 W (RMS) (using as the centre speaker)

Power consumption
225 W

Standby Power consumption
< 0.7 W

Dimensions (w x h x d)
KP-44PS2/44PS2U: Approx. 1100 x 1161 x 543 mm
KP-51PS2: Approx. 1256 x 1264 x 633 mm

Weight
KP-44PS2/44PS2U: Approx. 87 kg
KP-51PS2: Approx. 97 kg

Accessories supplied
1 Remote Control (RM-903)
2 Batteries (IEC designated)

Other features
DRC 100 Hz picture
Digital Comb filter (High resolution)
TELETEXT, Fastext, TOPtext (2000 page TEXT memory)
NexTView
NICAM
Sleep Timer
Smartlink
Digital Noise detection
Graphic Equaliser
Personal ID
Auto Format

Design and specifications are subject to change without notice.

CAUTION
SHORT CIRCUIT THE ANODE OF HTE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SECTION 1
SELF DIAGNOSIS FUNCTION

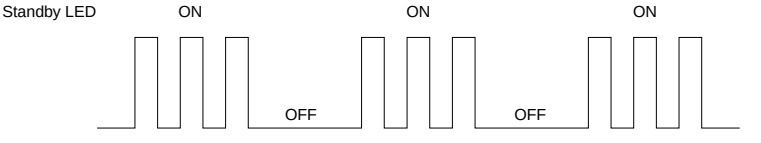
1-1. RE-3W SELF DIAGNOSTIC SOFTWARE

The identification of errors within the RE-3W chassis is triggered in one of two ways : - 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See table 1., non fatal errors are reported using this method.

Diagnostic Item Description	No. of times Standby LED Flashes	Probable cause Location	Detected Symptoms
Power does not turn on	Does not light	Power cord is not plugged in Fuse is open circuit	Power does not come on No power is supplied to the TV AC power supply is faulty
+B Overcurrent (OCP)	2 times	H. OUT (Q5104) is shorted (D Board) Linearity FET (Q5105) is shorted (D Board) IC6004 Power IC is shorted (G Board)	Power does not come on Load on power line has shorted
Vertical Deflection stopped	4 times	+15 V is not supplied R5340 open (D Board) –15 V is not supplied R5341 open (D Board) IC5302 is shorted (D Board)	Vertical deflection pulse has stopped Power line has shorted

ERROR	LED ERROR COUNT
No error	00
Not allowed (may be confused with Sircs response flash)	01
Over Current Protection	02
Over Voltage Protection	03
Vertical Protection	04
Not used	05
Horizontal Protection	06
Speaker Protection	07
General IIC Line 0 error	08
MEGATEXT (IC9502)	09
NVM (IC9108)	10
Main colour decoder (IC8301)	11
Backend (IC4301)	14
Multi sound processor (IC4702)	15
External RAM (IC9107)	17

Flash Timing Example : e.g. error number 3



1-2. ERROR DETECTION MONITOR

Device acknowledge is used to check IIC errors. Device acknowledge is checked by sending an IIC start sequence during CRT power on. Each device is checked three times, if there is no acknowledge after each attempt, it will be regarded as an error.
There are three steps to check for errors.

1. IIC line 0
   If all devices except the NVM have errors, IIC line 0 error is displayed.
2. Board check
   If all devices mounted on one board have errors, board error is displayed.
3. Each device check
   if IIC line error and board error are not detected then the device with an error is displayed.

The detected errors can be displayed as follows:

1. Error Monitor Menu
2. Error Reader

1-2-1. Error Monitor Menu

The error monitor menu is displayed by selecting TT33. The following menu will be displayed:

Error Monitor

1 Ignore Errors OFF ON ON

Operating Time : 000021 h 40 min

Stored Errors :

1. A-Board
2. B3-B CXA2100 MID
3. J-B CXA2123 Main Col Dec
4. Error Code Not Valid
5. Error Code Not Valid

Current Error :

Start Error Sequence

1-2-2. Error Reader Display

The error reader display is connected to the service connector to read actual error codes. The part number for the error reader display is S-188-900-10.

Once an error has been detected it will then be displayed on the two digit error reader. The errors displayed refer to the following table:

	Send Data to Error Reader			
Error Code	Data High	Data Low	Error Type	Function
00 00h	–	f0h	no device	
Gen. IIC Error				
00 01h	f0h	01h	IIC 0 line	
00 02h	f0h	02h	IIC 1 line	not used
Board Error				
01 00h	f1h	00h	A Board	
04 00h	f4h	00h	B3 Board	
06 00h	f6h	00h	E Board	
07 00h	f7h	00h	J/S Board	
08 00h	f8h	00h	M Board	
Device Error				
A Board				
01 01h	f1h	01h	CXA1875	Port Expander
01 02h	f1h	02h	TU1301	Main Tuner
01 03h	f1h	03h	TU1302	Sub Tuner
B3 Board				
04 01h	f4h	01h	CXD9509	MID
E Board				
06 01h	f6h	01h	CXA2100	Backend
J Board				
04 04h	f4h	04h	TDA9178	Picture Booster
07 01h	f7h	01h	CXA2057	Auto Wide
07 03h	f7h	03h	CXA2123	Sub Colour
07 04h	f7h	04h	CXA2123	Main Colour
07 0Ah	f7h	0Ah	CXA2149	AV SW
S Board				
07 05h	f7h	05h	CXA1875	Sub Sound
07 08h	f7h	08h	MSP3410D	Sound Proc
M Board				
08 01h	f8h	01h	ST24C32	NVM

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

SECTION 2
GENERAL

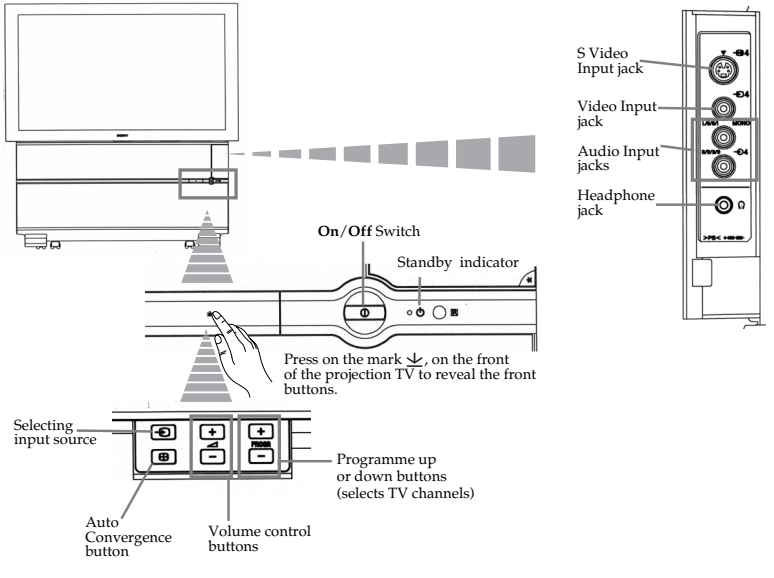
Overview

Checking the Accessories Supplied

One Remote Control (RM-903)

Two batteries (R6 type)

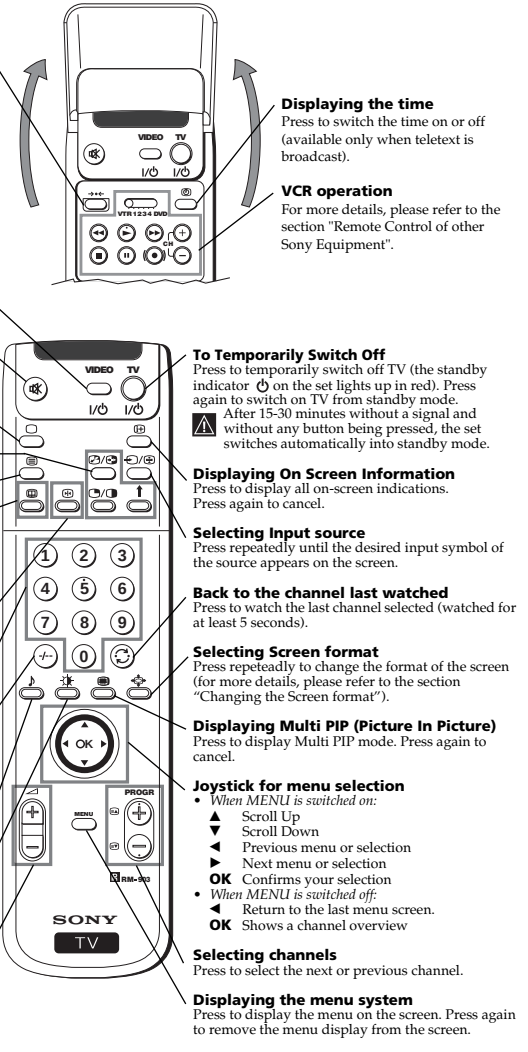
Overview of TV Buttons


S Video Input jack
Video Input jack
Audio Input jacks
Headphone jack
On/Off Switch
Standby indicator
Press on the mark ⏚, on the front of the projection TV to reveal the front buttons.
Selecting input source
Programme up or down buttons (selects TV channels)
Auto Convergence button
Volume control buttons

GB

Overview

Overview of Remote Control Buttons



Resetting to factory set levels
Press the to return the picture and sound settings to factory set levels. This will also return the set to the install condition, the "Auto Tuning" menu will appear on the screen, refer to the section "Switching on the set and automatically Tuning" (step 4) of this manual.

Displaying the time
Press to switch the time on or off (available only when teletext is broadcast).

VCR operation
For more details, please refer to the section "Remote Control of other Sony Equipment".

VCR on/off
Press to switch your VCR on or off.

Muting the Sound
Press to mute TV sound.
Press again to restore the sound.

Selecting TV mode
Press to switch off Teletext or video input.

PAP (Picture And Picture)
For more details, please refer to the section "Using PAP (Picture And Picture)".

Selecting Teletext
Press to switch on Teletext.

Displaying EPG
Press to display the Electronic Programme Guide (EPG). Press again to switch off EPG.

Freezing the picture
Press to freeze the picture. Press again to return to the normal picture.

Selecting channels
Press to select channels.

For double-digit programme numbers, e.g. 23, press -/-- first, then the buttons 2 and 3. If you enter an incorrect first digit, this should be corrected by entering another digit (0-9) and then selecting -/-- button again to enter the programme number of your choice.

Selecting Sound mode
Press repeatedly to change the sound mode.

Selecting Picture mode
Press repeatedly to change the picture mode.

Adjusting TV Volume
Press to adjust the volume of the TV.

To Temporarily Switch Off
Press to temporarily switch off TV (the standby indicator ⏻ on the set lights up in red). Press again to switch on TV from standby mode.
⚠ After 15-30 minutes without a signal and without any button being pressed, the set switches automatically into standby mode.

Displaying On Screen Information
Press to display all on-screen indications. Press again to cancel.

Selecting Input source
Press repeatedly until the desired input symbol of the source appears on the screen.

Back to the channel last watched
Press to watch the last channel selected (watched for at least 5 seconds).

Selecting Screen format
Press repeteadly to change the format of the screen (for more details, please refer to the section "Changing the Screen format").

Displaying Multi PIP (Picture In Picture)
Press to display Multi PIP mode. Press again to cancel.

Joystick for menu selection
- *When MENU is switched on:*
  - ▲ Scroll Up
  - ▼ Scroll Down
  - ◄ Previous menu or selection
  - ► Next menu or selection
  - **OK** Confirms your selection
- *When MENU is switched off:*
  - ◄ Return to the last menu screen.
  - **OK** Shows a channel overview

Selecting channels
Press to select the next or previous channel.

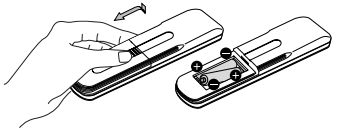
Displaying the menu system
Press to display the menu on the screen. Press again to remove the menu display from the screen.

ⓘ Besides TV functions, all coloured buttons as well as green symbols are also used for Teletext operation. For more details, please refer to the "Teletext" section of this instruction manual.

Inserting Batteries into the Remote Control

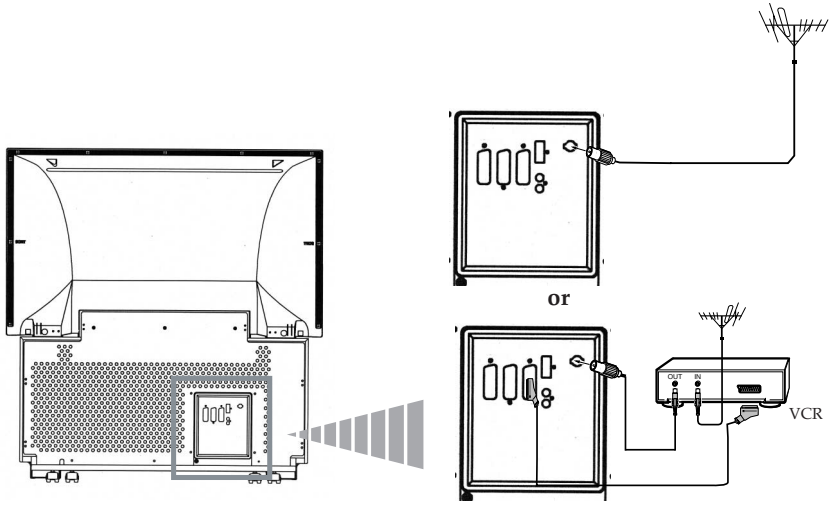
⚠ Make sure you insert the batteries using the correct polarities.

Always remember to dispose of used batteries in an environmental friendly way.



Connecting the Aerial and VCR

ⓘ Connecting cables are not supplied.

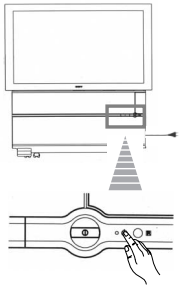


ⓘ The Scart lead is optional.
If you use this optional connection it can improve picture and sound quality when using a VCR.

⚠ If you do not use a SCART lead, after automatically tuning the projection TV refer to the "Manually Tuning the TV" section of this instruction manual, to tune in the set to the output of your VCR. Also refer to your VCR instruction manual to find out how to find the output channel of your VCR.

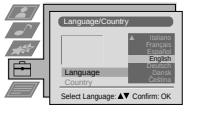
Switching on the set and Automatically Tuning

ⓘ The first time you switch on your TV, a sequence of menu screens appear on the TV enabling you to 1) choose the language of the menu screen, 2) choose the country in which you wish to operate the set, 3) search and store all available channels (TV Broadcast) and 4) change the order in which the channels (TV Broadcast) appear on the screen.
However, if you need to change the language menu, change the country, change or repeat the tuning (e.g. when you move house) or rearrange the order of the channels, you can do that by selecting the appropriate menu in the (Set Up).

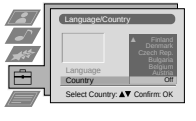


1 Connect the set plug to the mains socket (220-240V AC, 50 Hz). Press the ⏻ **on/off** button on your set to switch on. The first time you press this button the **Language**/**Country** menu displays automatically on the screen.

2 Push the joystick on the remote control ▼ or ▲ to select the language, then press **OK** to confirm your selection. From now on all the menus will appear in the selected language.

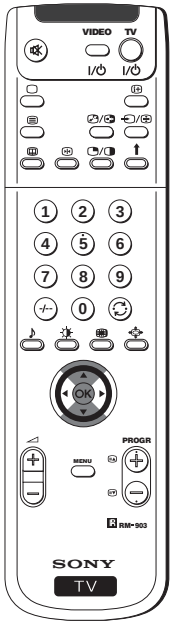


3 Push the joystick ▼ or ▲ to select the country in which you will operate the set, then press **OK** to confirm your selection.

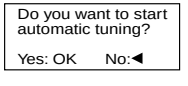


ⓘ If the country in which you want to use the TV set does not appear in the list, select "-" instead of a country.

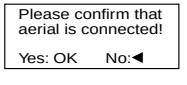
ⓘ If you are operating the projection TV in the UK, we reccommend you not to select "Off". Otherwise the On Screen clock will not show the correct UK time.



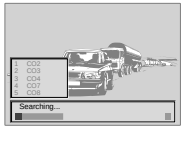
4 The Auto Tuning menu appears on the screen in the selected language, then press the **OK** button on the remote control to select **Yes**.



5 A new menu appears automatically on the screen asking you to check that the aerial is connected. Confirm that the aerial is connected and then press the **OK** button to start the automatic tuning.

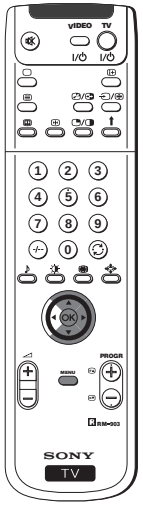


ⓘ • The TV starts to automatically search and store all available channels (TV Broadcast) for you.
• If you have selected the "Off" option in the Country menu and you activate autotuning again, the TV Broadcasts will be stored from the programme number selected at that time.



⚠ This procedure could take some minutes. Please, be patient and do not press any button. Otherwise the automatic tuning will not be completed.

continued...

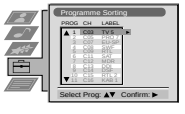


6 After all available channels are captured and stored, the Programme Sorting menu appears automatically on the screen enabling you to change the order in which the channels appear on the screen.

a) If you do not wish to change the channel order, go to step 7.

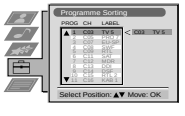
b) If you wish to change the channel order:

1 Push the joystick on the remote control ▼ or ▲ to select the programme number with the channel (TV Broadcast) you wish to rearrange, then push ► to enter.



2 Push the joystick ▼ or ▲ to select the new programme number position for your selected channel (TV Broadcast), then press **OK**.

The selected channel now moves to its new programme position and the other channels move accordingly.



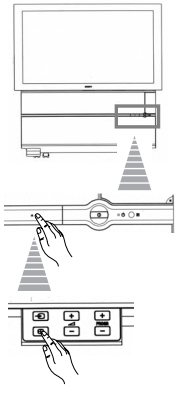
3 Repeat steps b1) and b2) if you wish to change the order of the other channels.

7 Press the **MENU** button to exit and return to the normal TV screen.

The set is now ready for use.

Adjusting Colour Registration (Convergence)

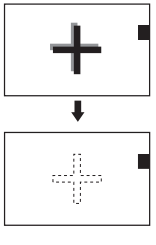
Due to the earth's magnetism, the picture might become undefined and you could see different colours on the outlines of the images. In that case, proceed as follows.



Auto converge the Red, Green, and Blue Lines

1 Press on the mark ⏚, on the front of the projection TV to reveal the front connectors.

2 Press ⊡ button.



The Auto Convergence function works for about 10 seconds. When the white cross disappears from the screen, your projection TV is ready for use.

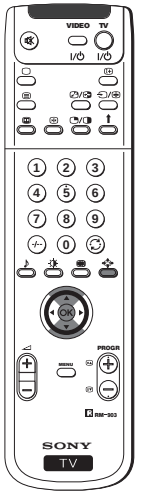
Notes:

The Auto Convergence function does not work when:

- no signal is input.
- the input signal is weak.
- the screen is exposed to spotlights or direct sunlight.
- you watch the teletext broadcast.
- you watch NexTView.

Changing the Screen Format

This feature allows you to change the size of the TV picture.

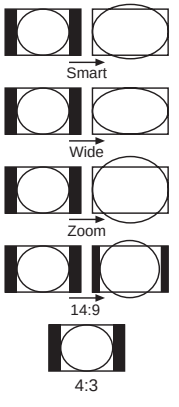


1 Press the ⇔ button on the remote control repeatedly to select one of the following formats.

Smart:	imitation of wide screen effect for 4:3 broadcast.
4:3:	conventional 4:3 picture size, full picture information.
14:9:	compromise between 4:3 and 16:9 picture size.
Zoom:	widescreen format for letterbox movies.
Wide:	for 16:9 broadcast.

In **Smart**, **Zoom** and **14:9 modes** parts of the top and bottom of the screen are cut off. Press ▼ or ▲ to adjust the position of the image on screen (eg to read subtitles).

2 Press the **OK** button to confirm your selection.



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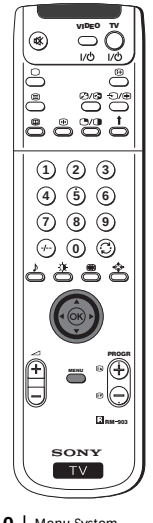
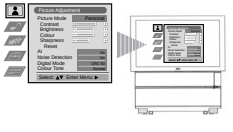
Introducing the Menu system

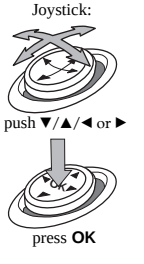
Your set uses an on-screen menu system to guide you through the operations. Use the following buttons on the Remote Control to operate the menu system:



1 Press the **MENU** button to switch the first level menu on.



2
- To higlight the desired menu or option, push the joystick ▲ or ▼.
- To enter to the selected menu or option, push ►
- To return to the last menu or option, push ◄.
- To alter settings of your selected option, push ▼/▲/◄ or ►.
- To confirm and store your selection, press **OK**.



3 Press the **MENU** button to remove the menu from the screen.

Adjusting the Picture

Although the picture is adjusted at the factory, you can modify it to suit your own taste.

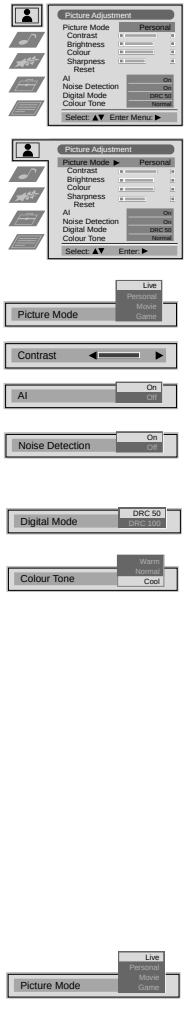
1 Press the **MENU** button on the remote control to display the menu on the screen.

2 Push the joystick ► to enter the **Picture Adjustment** menu.

3 Push the joystick ▼ or ▲ to select the item you wish to change, then push ► to enter.
Refer to the table below to chose the item and for the effect of each control:

Picture Mode	▼ **Live** (for live broadcast programmes) **Personal** (for individual settings) **Movie** (for films) ▲ **Game** (for computer games)
Contrast	◄ Less ► More
Brightness*	◄ Darker ► Brighter
Colour*	◄ Less ► More
Sharpness*	◄ Softer ► Sharper
Hue**	◄ Reddish ► Greenish
Reset	⊛ Resets picture to the factory preset levels.
AI (Artificial Intelligence)	▲ **Off:** Normal ▼ **On:** Automatic optimization of contrast level according to the TV signal
Noise Detection	▲ **Off:** Normal ▼ **On:** Reduces picture noise in the case of a weak/noisy broadcast signal.
Digital Mode	▼ **DRC 50:** improves picture resolution and is optimal for viewing scrolling characters. ▲ **DRC 100:** improves picture resolution creating flicker-free pictures.
Colour Tone	▼ **Warm:** Gives a warm tint to the picture. **Normal:** Normal. ▲ **Cool:** Gives a cool tint to the picture.

* Can only be altered if Personal Picture Mode is selected.
** Only avalaible for NTSC colour signal (e.g: USA video tapes).



4 Push the joystick ▲, ▼, ◄ or ► to alter the selected item, then press the **OK** button to store the new adjustment.

5 Repeat steps 3 and 4 to alter the other items.

6 Press the **MENU** button to exit and return to the normal TV screen.

Changing the Picture Mode Quickly

You can quickly change the Picture Mode without entering the Picture Control menu screen.

1 Press the ☼ button on the remote control repeatedly to directly access and select your desired picture mode (**Live**, **Personal**, **Movie**, or **Game**).

2 Press the **OK** button to remove the display from the screen.

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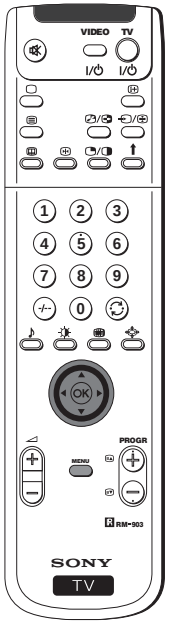
Adjusting the Sound

Although the sound is adjusted at the factory, you can modify it to suit your own taste.



1 Press the **MENU** button on the remote control to display the menu on the screen.

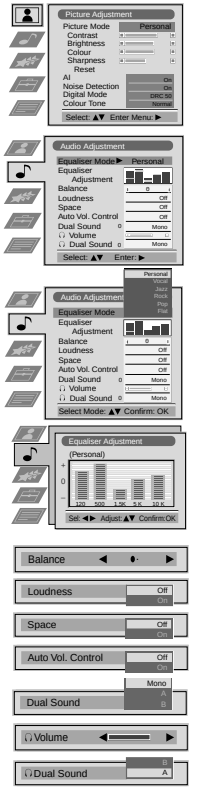
2 Push the joystick ▼ to select the ♪ symbol, then push ► to enter to the **Audio Adjustment** menu.

3 Push the joystick ▼ or ▲ to select the item you wish to change, then push ► to enter.
Refer to the table below to chose the item and for the effect of each control:

Equaliser Mode	▼ **Personal** (for individual settings) **Vocal** **Jazz** **Rock** **Pop** ▲ **Flat** (fixed setting, cannot be adjusted)
***Equaliser Adjustment**	Push to ► or ◄ to select the frequency band you want to alter and push to ▼ or ▲ to adjust. Finally, press the **OK** button to store the new adjustment.
Balance	◄ Left ► Right
Loudness	▼ **Off:** normal ▲ **On:** for music broadcasts
Space	▼ **Off:** normal ▲ **On:** acoustic sound effect
Auto Vol. Control	▼ **Off:** volume level changes according to the broadcast signal ▲ **On:** volume level of the channels will stay the same independent of the broadcast signal (e.g. in case of advertisement)
Dual Sound	• For a stereo broadcast: ▼ **Mono** ▲ **Stereo** • For a bilingual broadcast: ▼ **Mono** (for mono channel if available) **A** (for channel 1) ▲ **B** (for channel 2)
Headphones: ∩ **Volume**	◄ Less ► More
∩ **Dual Sound**	• For a stereo broadcast: ▼ **Mono** ▲ **Stereo** • For a bilingual broadcast: ▼ **Mono** (for mono channel if available) **A** (for channel 1) **B** (for channel 2) ▲ **PAP** (only when PAP is switched on)

* Can only be permanently stored if Personal Equaliser Mode is selected, the other modes (Vocal, Jazz, Rock or Pop) store until the next mode change.

continued...



4 Push the joystick ▼, ▲, ◄ or ► to alter the selected item, then press the **OK** button to store the new adjustment.

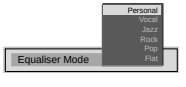
5 Repeat steps 3 and 4 to alter the other items.

6 Press the **MENU** button to exit and return to the normal TV screen.

Changing Sound Mode Quickly

You can quickly change Sound mode without entering the Sound Control menu screen.

1 Press the ♪ button on the remote control repeatedly to directly access and select your desired sound mode (**Personal**, **Vocal**, **Jazz**, **Rock**, **Pop** or **Flat**).



2 Press the **OK** button to remove the display from the screen.

Using the Features Menu

Using the Features menu you can:
a) Select if you want to listen to the sound from the set directly or through an external amplifier.
b) Adjust automatically the size of picture.
c) Select a time period after which the set switches itself into standby mode.
d) Lock the buttons on the set. In this way, the set only works by using the remote control buttons.
e) Select the source to be output from the Scart connector ⇨2/⇦2 (SMARTLINK). In this way you can record from this scart connector while watching another source. If your VCR supports Smartlink, this procedure is not necessary.

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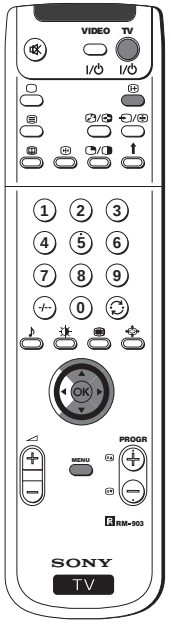


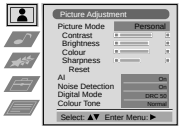
1 Press the **MENU** button on the remote control to display the menu on the screen.

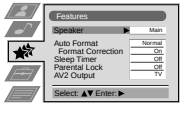
2 Push the joystick ▼ to select the ✸ symbol, then push ► to enter to the **Features** menu.

3 Push the joystick ▼ or ▲ to select the desired menu item, then push ► to enter (see the table below for the effect of each menu item).

4 Push ▼ or ▲ to select the desired setting and press the **OK** button to store.

5 Press the **MENU** button to exit and return to the normal TV screen.

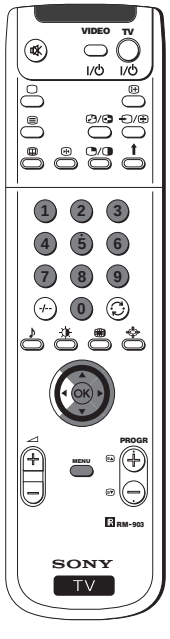




Features	Effect / Operation
Speaker	▼ **Main** (sound from the set) ▲ **Centre In** (sound from external amplifier)
Auto Format (only for aerial signal)	▼ **Off:** Size of picture is not automatically adjusted. **Normal:** Size of picture is automatically adjusted according to the broadcaster information. ▲ **Full:** The set automatically adjusts the picture size to eliminate any dark areas on the TV picture (as shown on the section "Changing the Screen Format)".
Format Correction (only if Auto Format is set to "Normal" or "Full")	▼ **Off:** 4:3/14:9 is selected. ▲ **On:** Smart mode is selected automatically for 4:3/14:9 broadcast.
Sleep Timer	▲ **Off** **10 min.** **20 min.** ... ▼ **90 min.** • One minute before the set switches into standby mode, the time remaining is displayed on the screen automatically. • When watching the TV, press the ⏻ button on the remote control to display the time remaining. • To return to normal operation from standby mode, press the **TV** I/⏻ button on the remote control.
Parental lock	▼ **Off** (Normal mode) ▲ **On** (The set can only be switched on using the remote control, the buttons on the TV do not work)
AV2 Output	▼ **TV** (audio/video signal from the aerial) **AV1** (audio/video signal from the Scart connector ⇨1/⇦). **AV2** (audio/video signal from the Scart connector ⇨2/⇦2 (SMARTLINK). **AV3** (audio/video signal from the Scart connector ⇨3/⇦3). ▲ **AV4** (audio/video signal from the connector ⇦ 4 placed in the front of the set). ⚠ If you have connected a decoder, please remember to change back the AV2 Output to "TV" for correct unscrambling.

Manually Tuning the TV

Use this function to preset channels (TV Broadcast) or a video input source one by one to the programme order of your choice.



1 Press the **MENU** button on the remote control to display the menu on the screen.

2 Push the joystick ▼ to select the 🧰 symbol, then push ► to enter the **Set Up** menu.

3 Push the joystick ▼ or ▲ to select **Manual Set Up**, then push ► to enter.

4 Push the joystick ▼ or ▲ to select **Manual Programme Preset**, then push ► to enter.

5 Push the joystick ▼ or ▲ to select on which programme number you want to preset a channel (for VCR select programme number "0"), then push twice ►. The column **SYS** is highlighted.

6 Push the joystick ▼ or ▲ to select the system for TV Broadcast and VCR channel (**B**/**G** for western european countries, **L** for France, **I** for Great Britain or **D**/**K** for eastern european countries) or a external input source (**EXT**), then push ►. The column **CH** is highlighted.

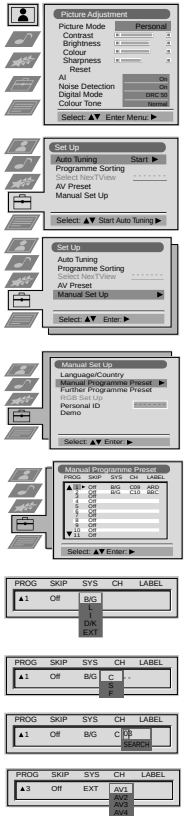
7 Push the joystick ▼ or ▲ to select the channel tuning, "**C**" for terrestrial channels (for TV Broadcast or VCR channel), "**S**" for cable channels or **F** for, direct frequency input then push ►.

8 a) If you know the channel number of the TV Broadcast, the VCR test signal channel or the frequency, press the number buttons to enter directly the channel number. Then press the **OK** button to store.
b) If you do not know the channel number, push the joystyck ▼ to select **SEARCH** and the set starts automatically to search for the next available TV Broadcast channel or the channel of the VCR signal. Then press the **OK** button to store or push ▼ to continue searching the desired channel.
c) For external input sources (EXT), push ▼ to select the input source where you have connected your equipment (AV1, AV2, AV3 or AV4). Then press the **OK** button to store.

9 Repeat steps 4 to 8 a), b) or c) if you wish to store more channels.

10 Press the **MENU** button to exit and return to the normal TV screen.

The set is now ready for use.



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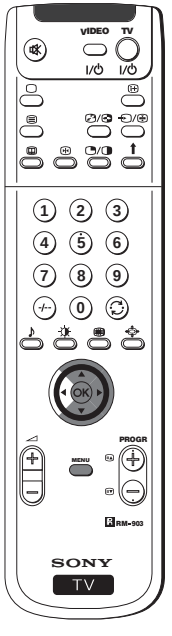
Labelling a channel

Names for channels (TV Broadcasts) are usually taken automatically from Teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers). Using this function, you can easily identify which channel (TV Broadcasts) or video source you are watching.



1 Press the **MENU** button on the remote control to display the menu on the screen.

2 Push the joystick ▼ to select the 🧰 symbol, then push ► to enter the **Set Up** menu.

3 Push the joystick ▼ or ▲ to select **Manual Set Up**, then push ► to enter.

4 Push the joystick ▼ or ▲ to select **Manual Programme Preset**, then push ► to enter.

5 Push the joystick ▼ or ▲ to select the programme number with the channel you wish to name.

6 Push the joystick ► repeatedly until the first element of the **LABEL** column is highlighted.

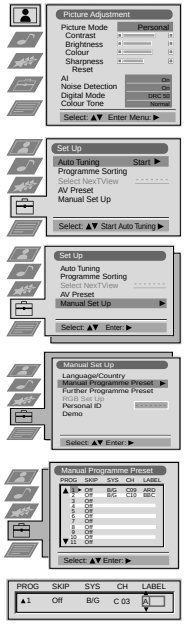
7 Push the joystick ▼ or ▲ to select a letter, number, "+" or a blank, then push ► to confirm this character. Select the other four characters in the same way.

8 After selecting all the characters, press the **OK** button.

9 Repeat steps 5 to 8 if you wish to label other channels.

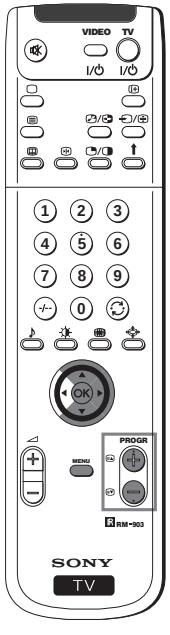
10 Press the **MENU** button to exit and return to the normal TV screen.

When you select a named channel, the name appears for a few seconds on the screen.



Skipping Programme positions

You can programme this set to skip any unwanted programme numbers when they are selected with the PROGR +/- buttons. To cancel this function afterwards, proceed in the same way as described below by selecting Off instead of On in step 6.



1 Press the **MENU** button on the remote control to display the menu on the screen.

2 Push the joystick ▼ to select the symbol, then push ► to enter the **Set Up** menu.

3 Push the joystick ▼ or ▲ to select **Manual Set Up**, then push ► to enter.

4 Push the joystick ▼ or ▲ to select **Manual Programme Preset**, then push ► to enter.

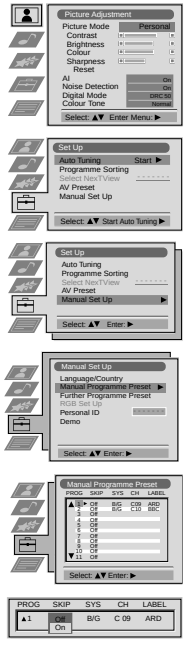
5 Push the joystick ▼ or ▲ to select the programme position you want to skip, then push ► to enter the **SKIP** column.

6 Push the joystick ▼ to select **On**, then press the **OK** button to store.

7 Repeat steps 5 and 6 to skip other unused programme positions.

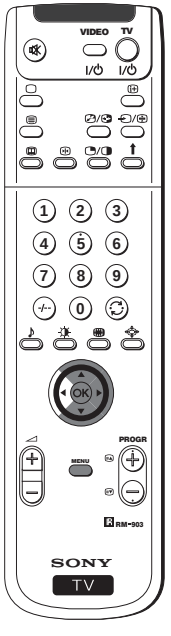
8 Press the **MENU** button to exit and return to the normal TV screen.

*When changing channels (TV Broadcasts) with the **PROGR +/-** buttons, the skipped programme positions do not appear. You can, however, still select them using the number buttons.*



Using the "Further Programme Preset" function

With this feature you can:
a) Individually attenuate the strength of a channel signal in case of a strong local aerial signal (striped picture).
b) Individually adjust the volume level of each channel.
c) Normally the automatic fine tuning (AFT) is operating, however you can manually fine-tune the TV to obtain better reception if the picture is distorted.
d) Preset the AV output for the programme positions of channels with scrambled signals (eg from a pay TV decoder). In this way a connected VCR records the unscrambled signal.



1 Press the **MENU** button on the remote control to display the menu on the screen.

2 Push the joystick ▼ to select the symbol, then push ► to enter the **Set Up** menu.

3 Push the joystick ▼ or ▲ to select **Manual Set Up** then push to ► to enter.

4 Push the joystick ▼ or ▲ to select **Further Programme Preset**, then push ► to enter.

5 Push the joystick ▼ or ▲ to select the relevant programme number, then push ► repeatedly to select:

a) **ATT** (RF attenuator)

b) **VOL** (Volume Offset)

c) **AFT** (Automatic Fine Tuning) or

d) **DECODER**

The selected item changes colour.

6 a) **ATT**
Push the joystick ▼ to select **On**, then press the **OK** button.
Repeat steps 5 and 6 a) to attenuate other channels.

b) **VOL**
Push the joystick ▼ or ▲ to adjust the volume level of the channel over a range of -7 to +7, then press the **OK** button. Repeat steps 5 and 6b) to adjust the volume level of the other channels.

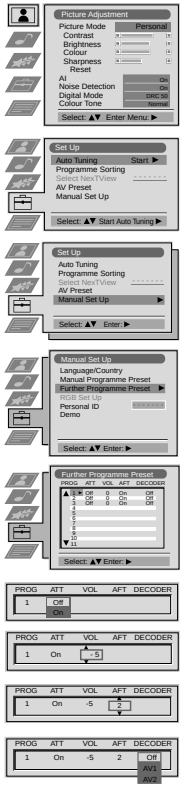
c) **AFT**
Push the joystick ▼ or ▲ to fine tune the channel frequency over a range of -15 to +15, then press the **OK** button. Repeat steps 5 and 6c) if you wish to fine tune other channels.

d) **DECODER**
Push the joystick ▼ or ▲ to select **AV1** (for a decoder connected to the Scart ⇨1/⇦) or **AV2** (for a decoder connected to the Scart ⇨2/⇦ 2 (SMARTLINK)), then press the **OK** button.
Repeat steps 5 and 6d) to select the AV1 or AV2 output for other programme positions.

The picture from the decoder connected to the Scart connector ⇨1/⇦ or ⇨2/⇦ 2 (SMARTLINK) on the back of the set will appear on this programme number.

7 Press the **MENU** button to exit and return to the normal TV screen.

The set is now ready for use.



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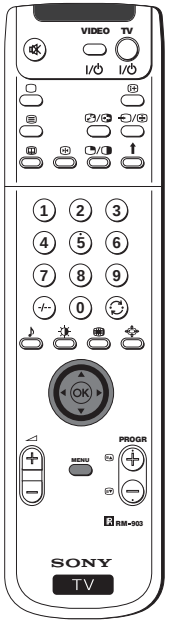
Inputting Your Personal ID

You can programme this set with a personal code, using up to eleven characters (letters and numbers). Then using this fuction it will be possible to identify your set if it was ever stolen.

This code can only be input once!
Make sure to write it down in this instruction manual.



1 Press the **MENU** button on the remote control to display the menu on the screen.

2 Push the joystick ▼ to select the 🧰 symbol, then push ► to enter the **Set Up** menu.

3 Push the joystick ▼ or ▲ to select **Manual Set Up**, then push ► to enter.

4 Push ▼ or ▲ to select **Personal ID**, then push ► to enter.

5 Push the joystick ▼ or ▲ to select a letter, number, + or a blank; then push ► to confirm this character. Select the other ten characters in the same way.

6 After selecting all the characters, press the **OK** button. A new menu appears automatically on the screen asking you to be sure that you want to save this ID.

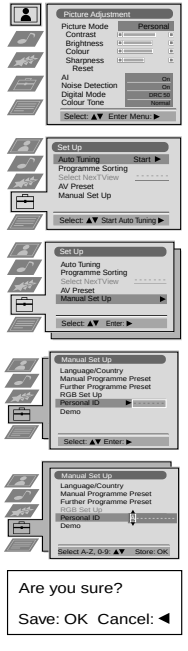
7 a) If you do not wish to store this ID, push the joystick ◄ and repeat steps 4 to 6 to enter a new ID.

b) If you wish to store this ID, press the **OK** button.

⚠ Remember that this code can only be input once.

8 Press the **MENU** button to return to the normal TV screen.

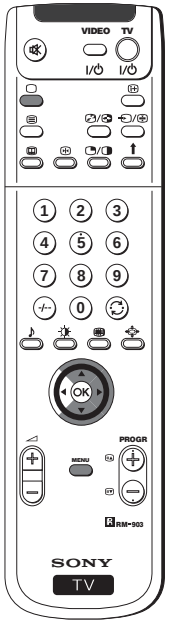
When you enter the Manual Set Up menu, in the "Personal ID" option the code you entered above will be displayed. You will not be able to select and change this option.



GB

Using the Demo Mode

This function provides an overview of some of the features available on this set.



1 Press the **MENU** button on the remote control to display the menu on the screen.

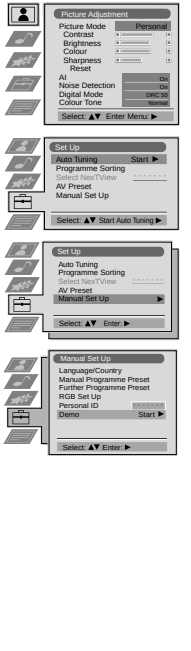
2 Push the joystick ▼ to select the 🧰 symbol, then push ► to enter the **Set Up** menu.

3 Push the joystick ▼ or ▲ to select **Manual Set Up**, then push to ► to enter.

4 Push ▼ or ▲ to select **Demo**, then push ► to enter and start the demonstration.

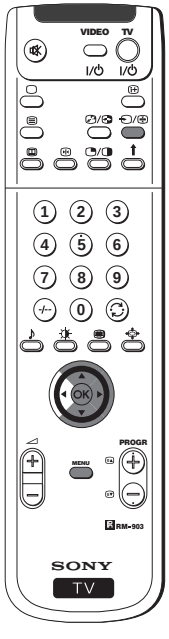
The set starts the demonstration and shows most of the available picture functions.

Note:
Press the ▢ button on the remote control to stop the Demo mode and return to the normal TV screen.



Adjusting the H Centre picture for an RGB source

When connecting an RGB source, such as a DVD player, to the Scart connector ⇨1/⇦ you may need to readjust the H Centre of the picture.



1 Press the ⇨ button repeatedly on the remote control until the symbol ⇨1 appears on the screen.

2 Push the **MENU** button to display the menu on the screen.

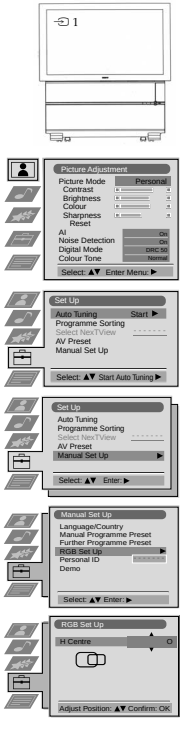
3 Push the joystick ▼ to select the 🧰 symbol, then push ► to enter the **Set Up** menu.

4 Push ▼ or ▲ to select **Manual Set Up** then push ► to enter.

5 Push the joystick ▼ or ▲ to select **RGB Set Up** then push ► to enter.

6 Push the joystick ► to enter **H Centre**, then push ▼ or ▲ to adjust the centre of the picture over a range of -10 to +10. Press the **OK** button to store.

7 Press the **MENU** button to exit and return to the normal TV screen.



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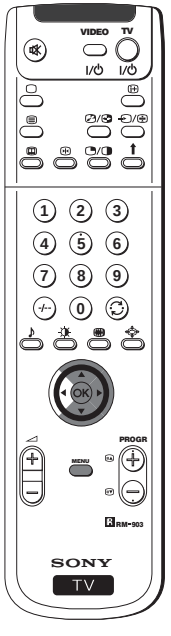


Labelling and Selecting the screen format of Input Sources

This function enables you to select the size of the picture coming from the input source as well as designate a name to the optional equipment you have connected to the sockets of this set. This name can contain up to 5 characters (letters or numbers).

1 Press the **MENU** button on the remote control to display the menu on the screen.

2 Push the joystick ▼ to select the 🧰 symbol, then push ► to enter the **Set Up** menu.

3 Push the joystick ▼ or ▲ to select **AV Preset**, then push ► to enter.

4 Push the joystick ▼ or ▲ to select the input source. Then push ► to enter.

5 Push the joystick ▼ or ▲ to select:

▼ **Off** (size of picture is not automatically adjusted).

Normal (size of picture is automatically adjusted according to the broadcaster information).

▲ **Full** (The set automatically adjusts the picture size to eliminate any dark areas on the TV picture (as shown on the section "Changing the Screen Format").

Next push ► .

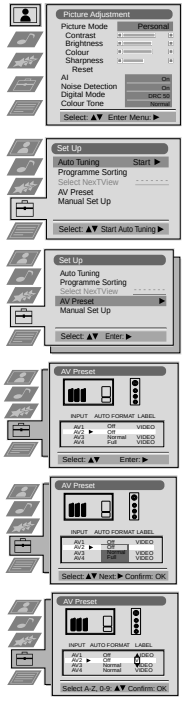
6 With the first element of the **LABEL** column highlighted, push the joystick ▼ or ▲ to select a letter, number, "+" or blank; then push ► to confirm this character. Select the other four characters in the same way.

7 After selecting all the characters, press the **OK** button.

8 Repeat steps 4 to 7 if you wish to select the picture size or label other input sources.

9 Press the **MENU** button to exit and return to the normal TV screen.

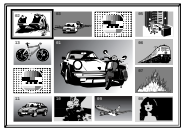
Whenever the equipment with the labelled input is selected for use, the name appears for a few seconds on the screen



Using Multi PIP (Picture In Picture)

Multi PIP (Picture in Picture) mode displays a succession of 12 still pictures and a 13th that is live. You can manually select which channel you wish to watch, either full-screen or in the PIP.

1 Press the ▣ button on the remote control to select the PIP mode. Now 13 programme positions appear on the screen, with the current channel in the centre.



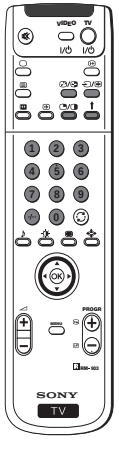
2 Push the joystick ▼, ▲, ◄ or ► to move within the 13 displayed channels.

3 Press the **OK** button to select the framed channel. The selected channel moves to the centre.

4 Press ▣ to return to the normal TV mode.

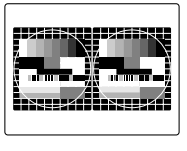
Using PAP (Picture And Picture)

PAP divides the screen into two for watching two channels simultaneously. One of the pictures can be selected to come from a video source.
The sound of the left screen comes through the set loudspeakers, the sound of the right screen is selectable via headphones.



Switching PAP on and off

Press the button ◔/◑ on the remote control to display the two screens in format 4:3. Press ◔/◑ again to switch PAP off.



Selecting PAP source

1 To change the source of the left screen:
With PAP switched on, press the number buttons (to select a TV channel) or press ⇥ (to select a video source).

2 To change the source of the right screen:
With PAP switched on, press the button ⬆ on the remote control. When the symbol ⬆ appears at the bottom of the right screen, press the number buttons (to select a TV channel) or press ⇥ (to select a video source).

Swapping screens

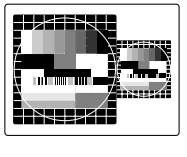
With PAP switched on, press the ⧄/⧂ button on the remote control to swap the two screens.

Zooming the screens

With PAP switched on, push the joystick repeatedly ◄ or ► to change the size of the two screens.

Selecting the sound of the right screen

You can select the sound of the right screen via headphones. With PAP switched on, refer to the "Adjusting the Sound" section of this instruction manual and set the option "⍰ Dual Sound" to "PAP".



Teletext

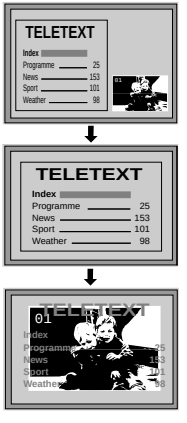
Most TV channels broadcast information via Teletext. The index page of the teletext service (usually page 100) gives you information on how to use the service.

Please use a TV channel with a strong signal, otherwise there may be Teletext errors.

GB

Switching Teletext on and off

1 Select the TV channel which carries the teletext service you want to view.
2 Press the ☰ button once for Picture and Teletext (P&T). The screen is divided in two, with the TV channel in the right corner and the Teletext display on the left.
P&T mode: Press ⧄/⧂ then press PROGR +/- to change the channel of the TV screen. Push the joystick ◄ or ► to change the size of the TV screen then press ⧄/⧂ again to resume normal teletext reception.
3 Press ☰ twice to get Teletext only.
4 Press ☰ three times for Mix mode.
5 Press ☰ a fourth time or press ▢ to switch off Teletext.



Selecting a Teletext page

Input three digits for the page number using the numbered buttons on the control. If you make a mistake, type in any three digits then re-enter the correct page number.

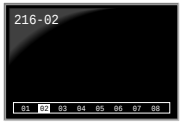
Using Other Teletext Functions

Selecting the next or preceding page

Press the ⧎ (PROG+) or ⧏ (PROGR-) buttons on the remote control to select the previous or next page.

Selecting a sub page

A teletext page may consist of several sub pages. In this case, after a few seconds, an information line is displayed showing the number of subpages.
Select the sub page by pressing ▲ or ▼.



To freeze a Teletext page

Press the ⧗ button to freeze the page. Press again to cancel the freeze.

Revealing the index page

Press the ⧉ button to reveal the index page (normally page 100).

Fastext

(only available if the TV station broadcasts Fastext signals)

When the colour coded menu appears at the bottom of a teletext page, press a coloured button on the remote control (red, green, yellow or blue) to access the corresponding page.

Using the feature "Page Catching"

1 Press the numbered buttons on the remote control to select a teletext page which has several page numbers on it (eg the index page).
2 Press the **OK** button.
3 Push the joystick ▲ or ▼ to select the desired page number then press the **OK** buttons. The requested page is displayed after some seconds.

continued...

Using the Teletext menu

1 With Teletext switched on, press the **MENU** button on the remote control to display the teletext menu on the TV screen.
2 Push the joystick ▲ or ▼ to select your chosen item, then push to ► to display the relevant sub menu.
3 To remove the teletext menu from the screen, press the **MENU** button.

Top / Bottom / Full

The Top/Bottom/Full sub menu allows you to enlarge different sections of the Teletext page. Push the joystick ▲ to enlarge the upper half of the screen, push ▼ to enlarge the lower half. Press the **OK** button to restore the page to normal size.

Text Clear

After having selected this function, you can watch a TV channel while waiting for a requested Teletext page. As soon as the page is available, the symbol ▤ changes colour. To view the page, press ▤ .

Reveal

Some teletext pages contain hidden information (eg for a quiz), which you can reveal. The hidden information appears on screen.

Time Page

(depending on availability of teletext service)

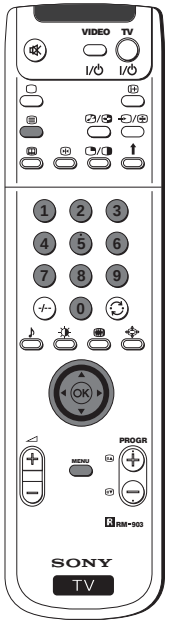
You can call up a time-coded page such as an alarm page at a time specified by you. After you have displayed the Time Page sub menu:

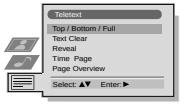
1 Press the numbered buttons on the remote control to enter the three digits of the desired page.
2 Press the numbered buttons again to enter the four digits of the desired time.
3 Press the **OK** button to store the desired time. The time is displayed in the top left corner of the screen. At the requested time the page is displayed.

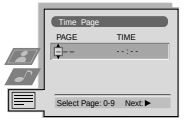
Page Overview

(depending on availability of teletext service)

In the Page Overview menu the block and group pages of TOP- Text are sorted into two columns, so that the customer can easily select this page. For each block page in the first column, the corresponding group pages are shown in the second column. Push the joystick ▲ or ▼ to select the desired block page, then push ► to enter to the group pages column. Push ▲ or ▼ to select the desired group page .
Finally, press the **OK** button to display the page.





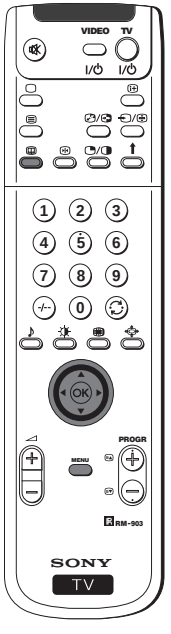


NexTView *

* (depending on availability of service)

NexTView is an on-screen electronic programme guide (EPG), providing you with programme information for different broadcasters.

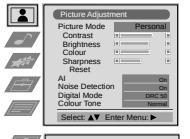
GB

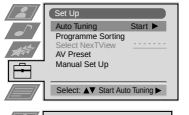


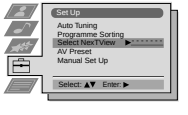
Selecting your NexTView provider

The set automatically selects the best NexTView provider for you. This provider is available about 30 minutes after the channel tuning. You can however change this selection of provider if you wish.

1 Press the **MENU** button on the remote control to display the menu on the screen.
2 Push the joystick ▲ or ▼ to select the 🧰 symbol, then push ► to enter the **Set Up** menu.
3 Push ▲ or ▼ to highlight **Select NexTView** then push ► to enter. A list is displayed containing all available NexTView providers.
4 Push ▲ or ▼ to select the desired provider then press the **OK** button to store.
5 Press the **MENU** button to remove the menu from the screen.







Displaying NexTView

1 Press the ⓘ button repeatedly on the remote control to switch NexTView on and off.
* In some cases, you may also need to push the joystick ◄ to display the Sony electronic programme guide.
2 Push the joystick ▲, ▼, ◄ or ► to move the cursor around the screen.
3 Press the **OK** button to confirm a selection.
a) If you press the **OK** button in the date, time or icon (themes) columns, you change the programme list according to the selection.
b) If you press the **OK** button in the programme list, you directly display the channel if the broadcast is currently running, or, you display the "Long Info" menu if the broadcast is running at some future time.

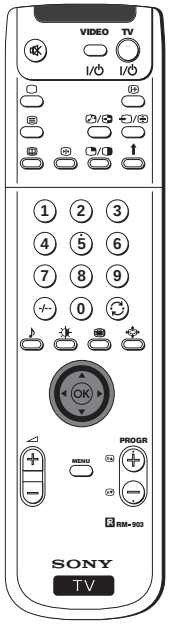
Index
- full selection list
- personal selection
- news broadcasts
- movies
- sports
- entertainment
- children
- return to last menu

Using the "Individual Setting" menu

You can make a personal list of the types of programmes you wish to view on the programme guide.

1 Push the joystick ▲ or ▼ to select the ☺ icon then push to ► to display the "Individual Setting" menu.
2 Push the joystick ▲ or ▼ to select your chosen item on the screen then press the **OK** button to confirm your choice.
3 Repeat step 2 for all the items you wish to have in your list.
4 When you have finished the list, push ► to select the ⮌ icon.
5 Press the **OK** button to return to the previous menu.
6 Push the joystick ▲ or ▼ to select the ☺ icon then press the **OK** button again to activate your "Individual Setting" filter.

continued...



Using the Long Info menu

With this menu screen, you can set timers or record selected programmes.

1 Push ▲ or ▼ to select a future programme in the programme list column.
2 Press the **OK** button to display the **Long Info** menu on the TV screen.

To set the timer

Push the joystick ▲ or ▼ to highlight the ⏱ icon then press the **OK** button repeatedly to "set the timer" or "cancel the timer". If you choose to set the timer, the programme is marked with a clock symbol and a message appears on the screen shortly before the programme is due to start asking whether you wish to still view this programme.

To view the timer table

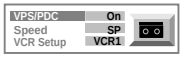
Push the joystick ◄ or ► to highlight the 📋 icon then press the **OK** button repeatedly to switch on/off the timer table. This table shows the programmes on which you have already set a timer. (You can set a timer on up to 5 programmes).

To record programmes

(only with Smartlink VCRs)

1 Connect your Smartlink VCR.
2 Push the joystick ◄ or ► to select 📼 then press the **OK** button to download the information to your VCR.
3 To set up the VCR:

VPS/PDC
Push the joystick ◄ or ► to select **VPS/PDC** then press the **OK** button repeatedly to select **On** or **Off**. With this setting on you have the guaranteed recording of the whole broadcast should there be a change in the TV programme. This only works if the selected channel broadcasts a VPS/PDC signal.



Speed
Push the joystick ▼ to select **Speed** then press the **OK** button repeatedly to select between **SP** for standardplay or **LP** for longplay. With longplay you can record twice as much on a videotape. The picture quality however may suffer.

VCR Setup
Push the joystick ▼ to select **VCR Setup** then press the **OK** button repeatedly to select which **VCR** you wish to programme, namely **VCR1** or **VCR2**.

4 Finally, push the joystick ► to select the ⮌ icon then press the **OK** button to remove the menu from the TV screen.

Connecting Optional Equipment

Using the following instructions, you can connect a wide range of optional equipment to this set.

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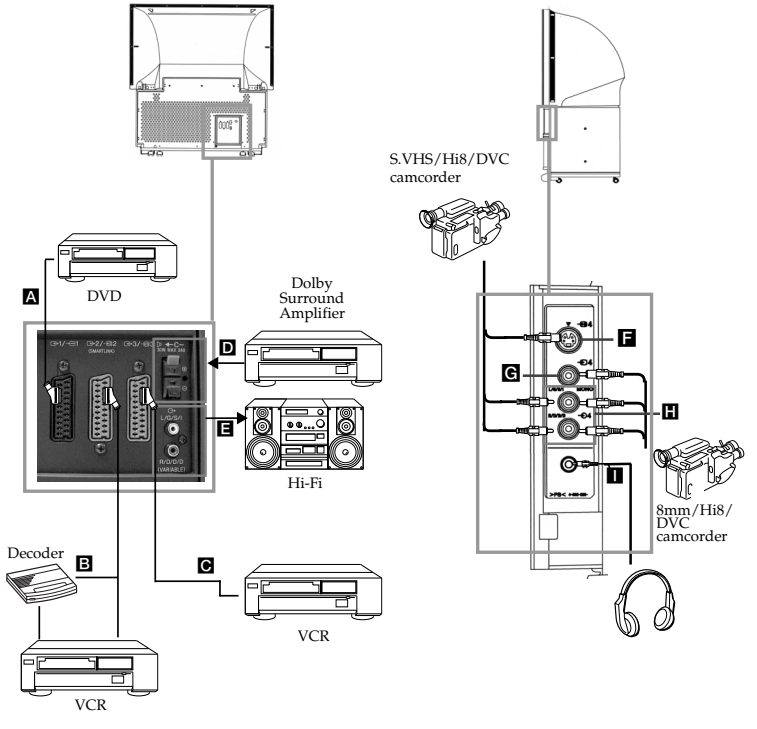
To avoid picture distortion:
- Do not connect equipment to **F** and **G** connectors at the same time.



Acceptable input signal	Available output signal
A Audio/video and RGB signal	Video/audio from TV tuner.
B Audio/video and S video signal	Video/audio from selected source.
C Audio/video and S video signal	Video/audio displayed on TV screen (monitor out).
D Centre speaker input Set "Speaker" on the Features menu to "Centre in".	No outputs.
E No inputs	Audio signal.
F S Video signal	No output.
G Video signal	No output.
H Audio signal	No output.
I No input	Audio signal to headphones.

Using Optional Equipment

Additional Information when connecting equipment

Connecting a VCR

We recommend you connect your VCR to the B or C socket using a scart lead. If you do not have a scart lead, use the "Manually Tuning the TV" section of this instruction manual to tune in the channel of the VCR test signal to TV programme number "0". Also refer to your VCR instruction manual to get the VCR test signal.
If your video supports Smartlink please refer to the "Smartlink" section of this instruction manual.

Connecting to External Audio Equipment

1 To listen to the audio of the set on the Hi-Fi equipment:

Plug in your Hi-Fi equipment to the E sockets on the rear of the set if you wish to amplify the audio output from the TV.
The output level from E sockets can be varied by adjusting the volume of the headphones. Refer to the "Adjusting the sound" section of this instruction manual to adjust the volume of the headphones.

2 To listen to the Dolby Prologic system sound on the set speakers:

Plug in your Dolby Prologic system decoder amplifier to the D socket on the rear of the set if you wish to listen to the audio output from your equipment on the TV speaker. If you have a Dolby amplifier, connect the centre output from your amplifier to the D socket to use the set as a centre speaker. Refer to the "Using the Features menu" section of this instruction manual and set the option "Speaker" to "Centre in".

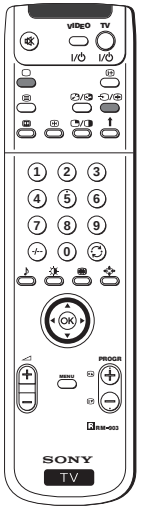
⚠ Remember that the maximum input level of this input is 30 W. Be careful never to over this limit.

For mono equipment

Connect the phono plug to the L/G/S/I socket on the front of the TV and select the 4 input signal using the instructions on this page below.

Select and View the Input Signal

ⓘ In order to get the input signal of a connected equipment onto the TV screen, you need to select the symbol of the connector to which you have connected the device.
e. g. : Your VCR is connected to the connector with the symbol 1/ 1. Press the button on the remote control repeatedly until you see the symbol 1 on the screen.



1 Connect your equipment to the designated socket, as it is indicated on the previous page.

2 Switch on the connected equipment.

3 Press the button repeatedly on your remote control until the correct input symbol appears on the screen.

Symbol	Input signals
1	• Audio/video input signal through the Scart connector A or * RGB through Scart connector A.
2	• Audio/Video input signal through the Scart connector B or * S Video through Scart connector B.
3	• Audio/Video input signal through the Scart connector C or * S Video through Scart connector C.
4	• S Video input signal through the 4-pin DIN connector F or * video input signal through phono jack G and audio input signal through phono jacks H.

* (automatic detection of the signal according to the connected equipment)

4 To return to the normal TV picture, press the button on the remote control.

Smartlink

ⓘ Smartlink is a direct link between the set and a VCR.

For Smartlink you need:

- A VCR which supports Smartlink, NextView Link, Easy Link or Megalogic.

ⓘ Megalogic is a trademark of Grundig Corporation.
EasyLink is a trademark of Philips Corporation.

- A fully-wired 21 pin SCART cable to connect your VCR to the Scart connector 2/ 2 (SMARTLINK) on the rear of the set.

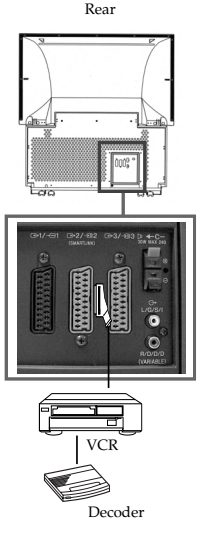
The features of Smartlink are:

- Tuning information such as the channel overview are downloaded from the set to the VCR.
- Direct recording: While watching TV you need to press just one button on the VCR to record this programme.
- Automatically switching on: With the set in standby mode, pressing the "Play ►" button on your VCR automatically switches the TV on.

GB

⚠ If you have connected a decoder to a VCR which supports Smartlink feature, select the menu "Further Programme Preset" in the (Manual Set Up) menu and select **DECODER AV2** to each coded channel. For more details, please refer to the section "Using the Further Programme Preset function" of this instruction manual.

⚠ For more information on Smartlink, please refer to the Instruction Manual of your VCR.



Remote Control of other Sony Equipment

ⓘ Using the buttons underneath the cover of the remote control you can control other Sony equipment.

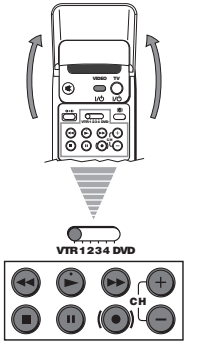
1 Open the cover of the Remote Control.

2 Set the selector VTR 1234 DVD according to the equipment you want to control:

VTR 1	Beta VCR
VTR 2	8 mm VCR
VTR 3	VHS VCR
VTR 4	Digital Video (DCR-VX 1000/9000 E, VHR-1000)
DVD	Digital Video Disk

3 Use the buttons underneath the cover on the remote control to operate the equipment.

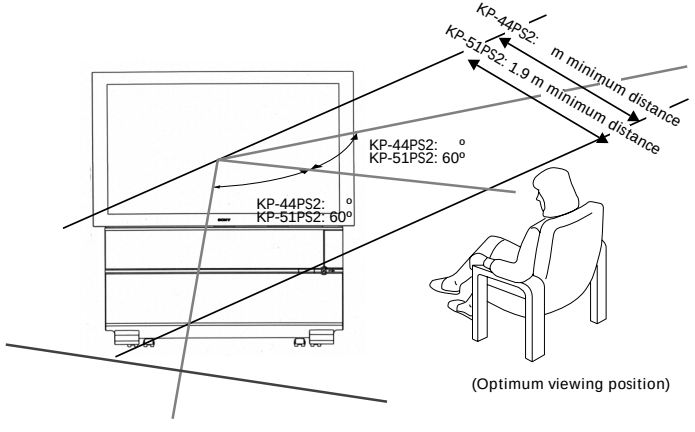
⚠
- If your equipment has a COMMAND MODE selector, set this selector to the same position as the VTR 1234 DVD selector on this set Remote Control.
- If the equipment does not have a certain function, the corresponding button on the remote control will not work.



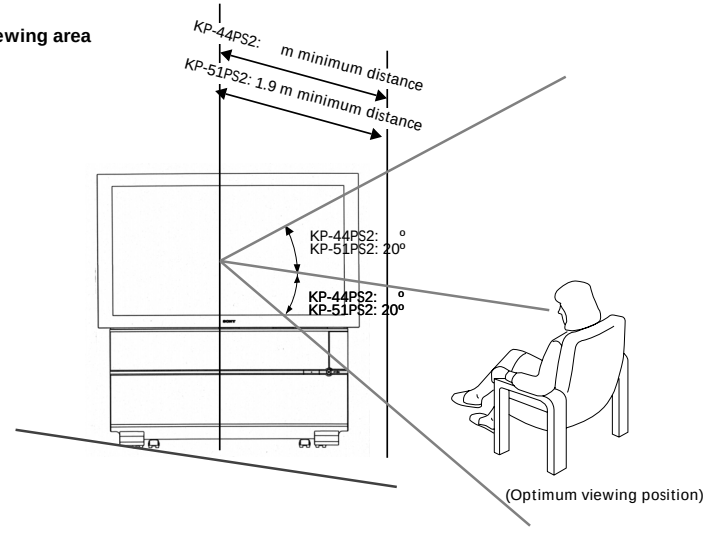
Optimum Viewing Area

For the best picture quality, try to position the set so that you can view the screen from within the areas shown below.

Horizontal viewing area



Vertical viewing area



Troubleshooting

Here are some simple solutions to the problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound.	• Plug the set in. • Press the ⏻ button on the front of the set. • If the ⏻ indicator is on in red colour, press **TV I/⏻** button on the remote control. • Check the aerial connection. • Check that the selected video source is on. • Turn the set off for 3 or 4 seconds and then turn it on again using the ⏻ button on the front of the set.
Poor or no picture (screen is dark), but good sound.	• Using the MENU system, select the Picture Adjustment menu. Adjust the brightness, contrast and colour balance levels.
Poor picture quality when watching a RGB video source.	• Press the ⮆ button repeatedly on the remote control until the RGB symbol ⮆ 1 is displayed on the screen.
Good picture, no sound	• Press the ◿ +/- button on the remote control. • Check that "Main" speaker is selected in the "Features" menu.
No colour on colour programmes	• Using the MENU system, select the Picture Adjustment menu. Adjust the colour balance.
Distorted picture when changing programmes or selecting teletext	• Turn off any equipment connected to the Scart connectors on the rear of the set.
Wrong characters appear when viewing teletext.	• Using the menu system, enter to the "Language/Country menu and select the country in which you operate the TV set.
Striped picture	• Adjust the RF Atenuator (ATT). For details, please refer to the section "Using the Further Programme Preset function".
Noisy picture when viewing TV channel	• Adjust Fine Tuning (AFT) to obtain better picture reception. For details, please refer to the section "Using the Further Programme Preset function"
Remote control does not function	• Replace the batteries.
The standby indicator ⏻ on the set flashes.	• Contact your nearest Sony service centre.

⚠ **• If you continue to have these problems, have your TV serviced by qualified personnel.**

• NEVER open the casing yourself.

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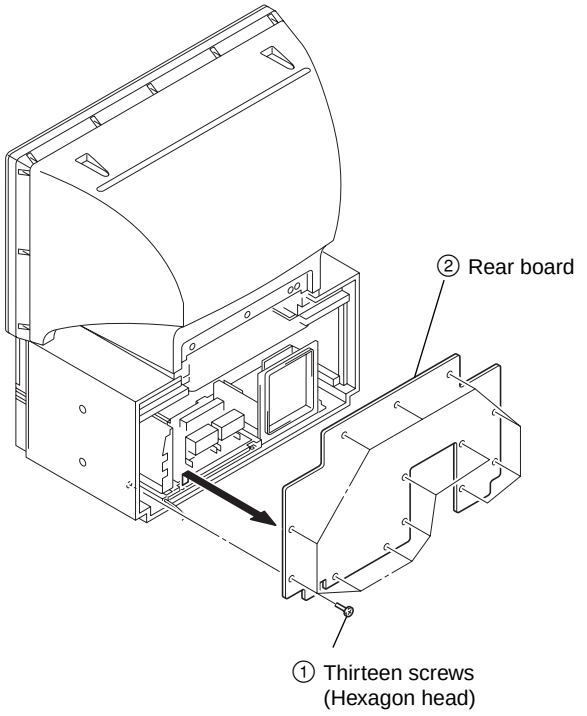
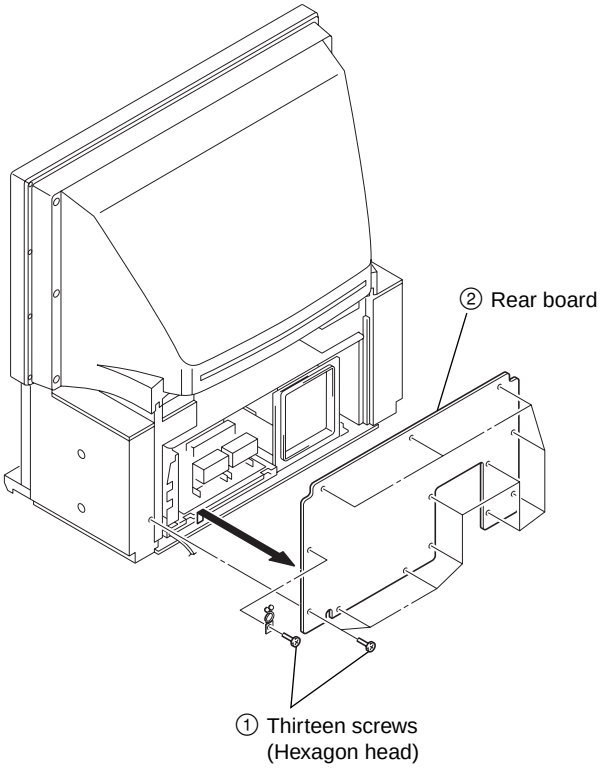
SECTION 3
DISASSEMBLY

3-1. REAR BOARD REMOVAL

• **KP-44**

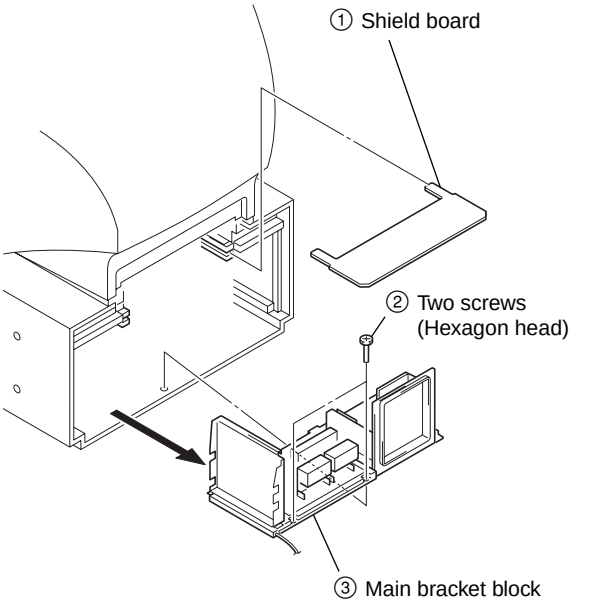


• **KP-51**



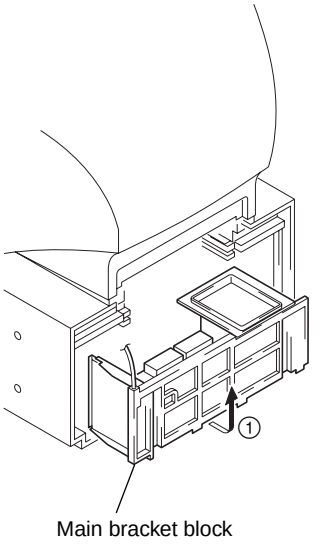
3-2. MAIN BRACKET BLOCK REMOVAL

• **KP-44/51**



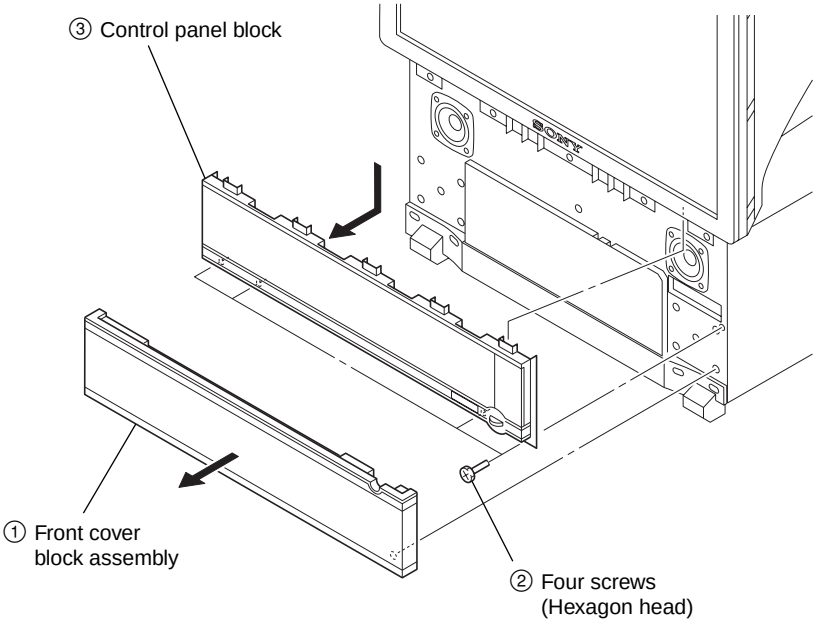
3-3. SERVICE POSITION

• **KP-44/51**



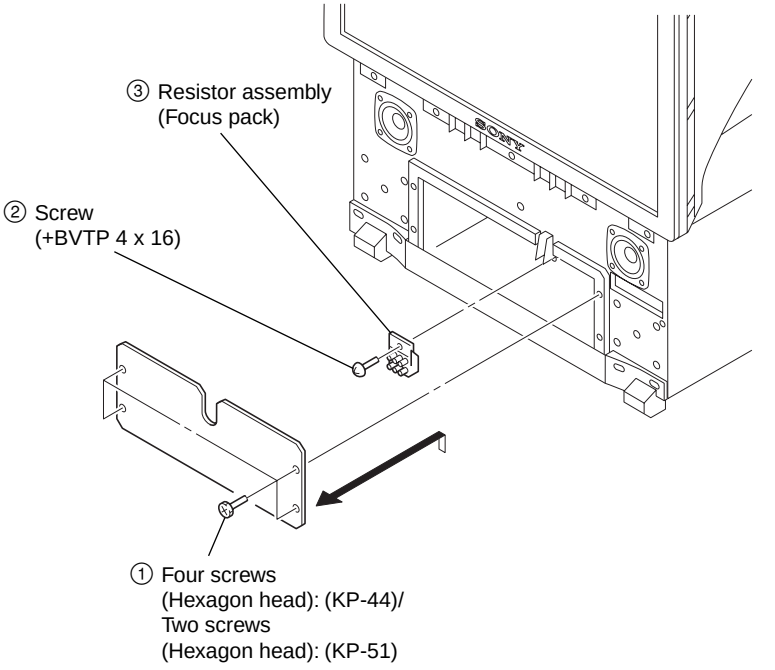
3-4. CONTROL PANEL BLOCK REMOVAL

• **KP-44/51**



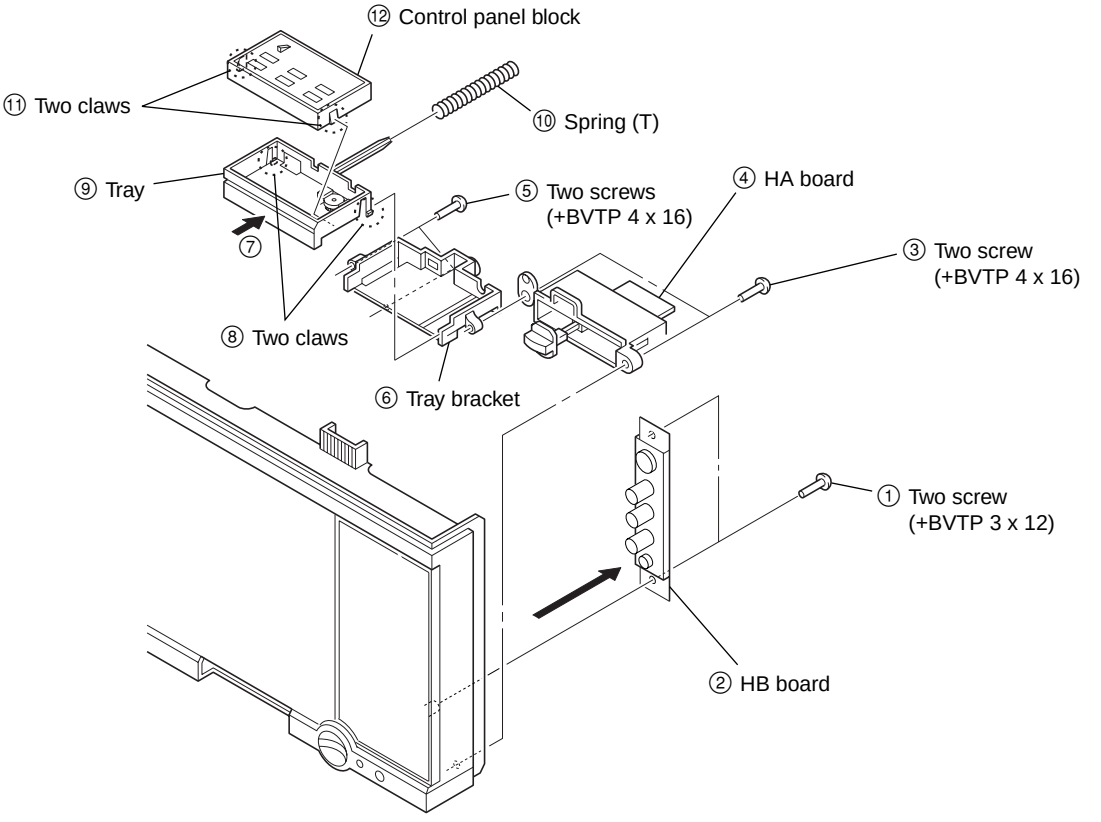
3-5. RESISTOR ASSEMBLY (FOCUS PACK) REMOVAL

• **KP-44/51**



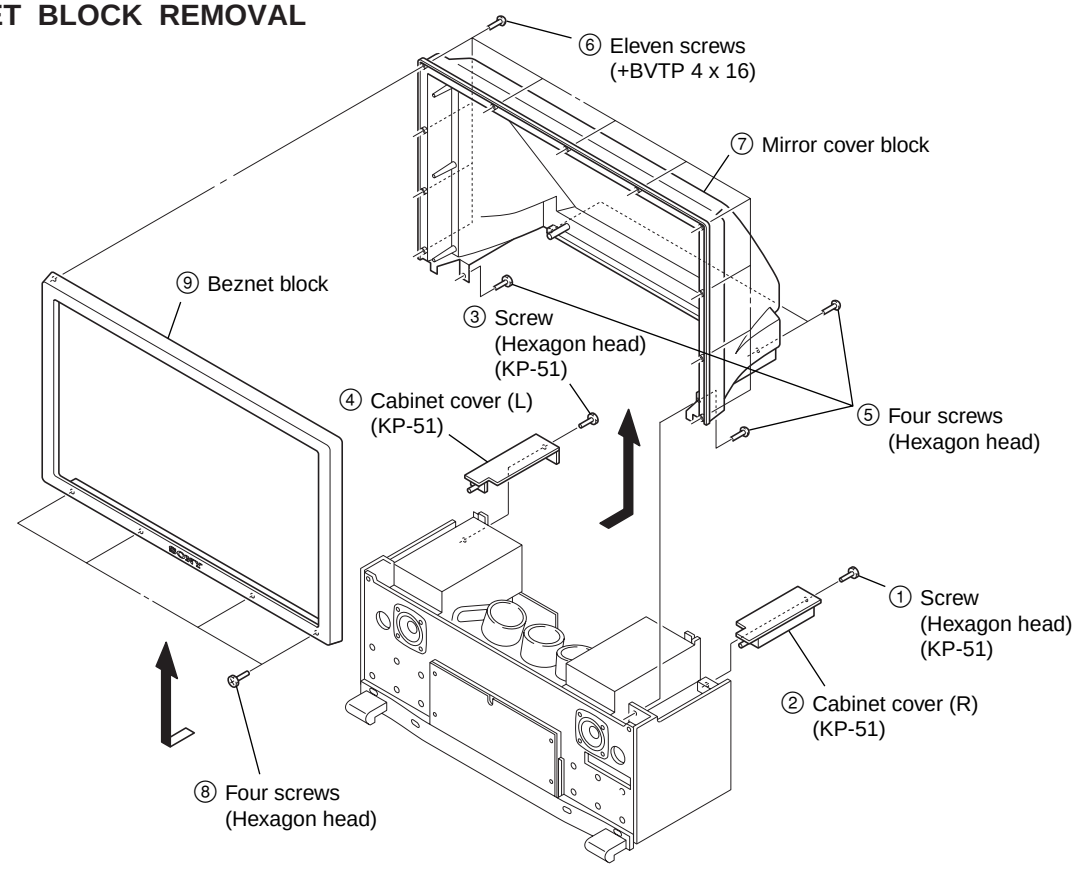
3-6. HB, HA AND CONTROL PANEL BLOCK REMOVAL

• **KP-44/51**



3-7. BEZNET BLOCK REMOVAL

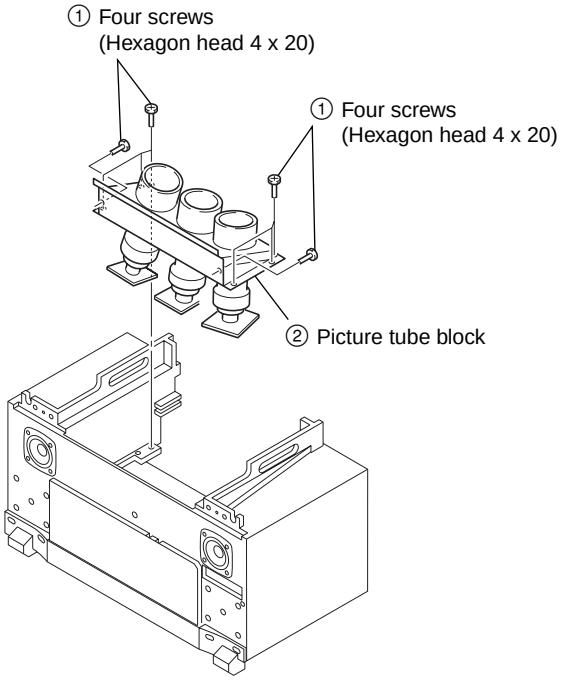
• **KP-44/51**



3-8. CHASSIS BLOCK REMOVAL

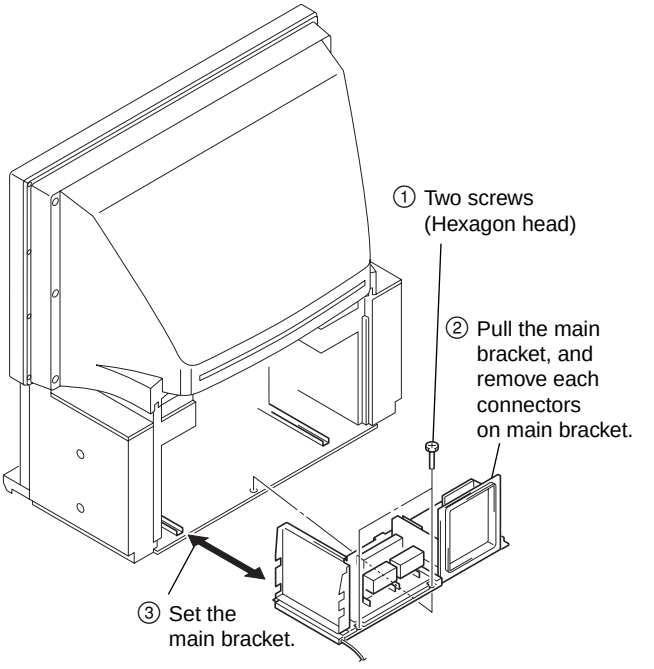
(1) PICTURE TUBE BLOCK REMOVAL

• **KP-44**



(2) MAIN BRACKET REMOVAL

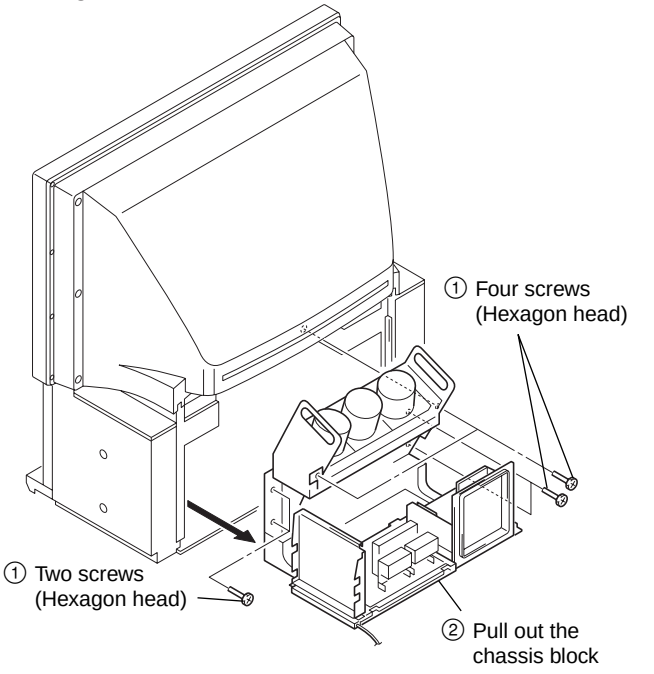
• **KP-51**



※ Pay particular attention to the wires of each Printed circuit boards when puling out the main bracket.

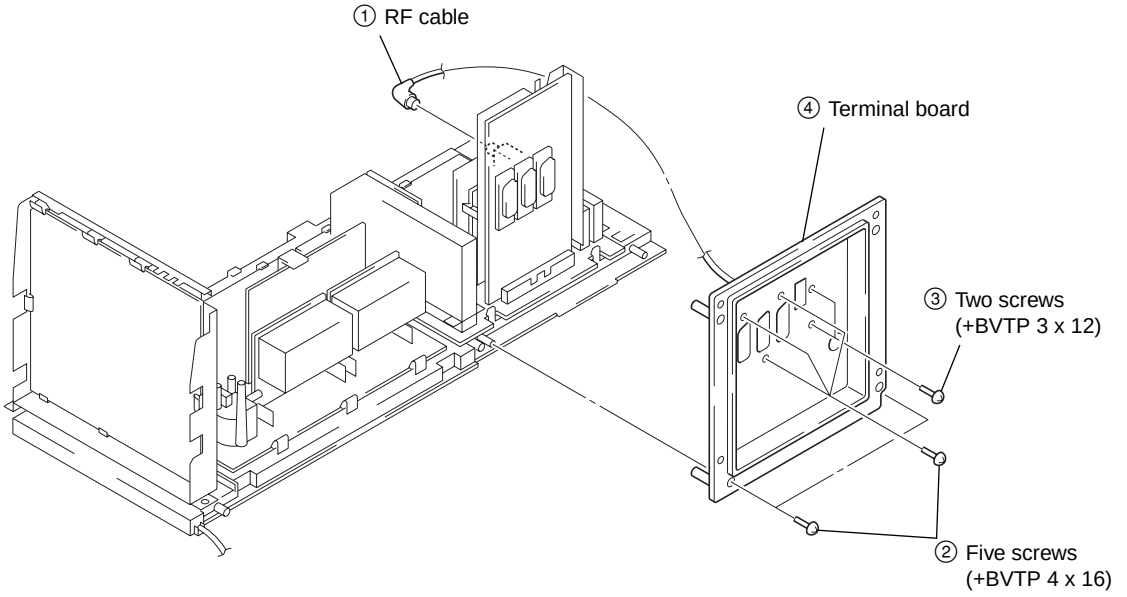
(3) CHASSIS BLOCK REMOVAL

• **KP-51**

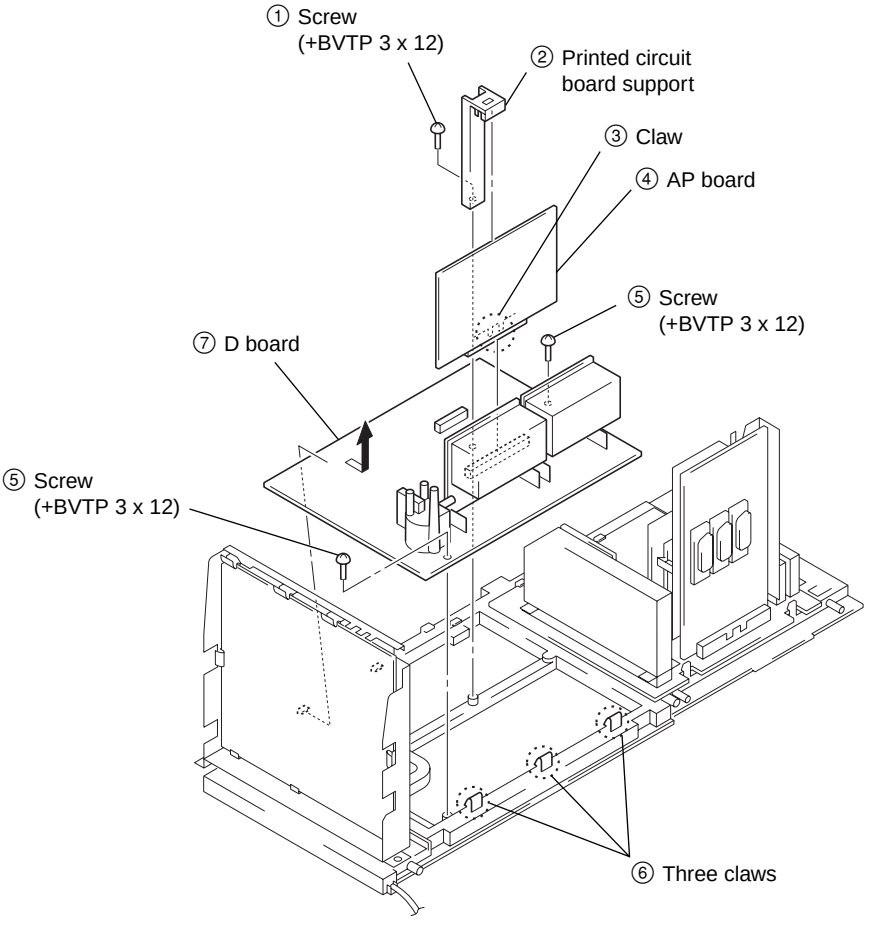


※ Pull out the chassis block by gripping the handles as shown in the diagram.
At this time, pay particular attention to the components removed in (2).

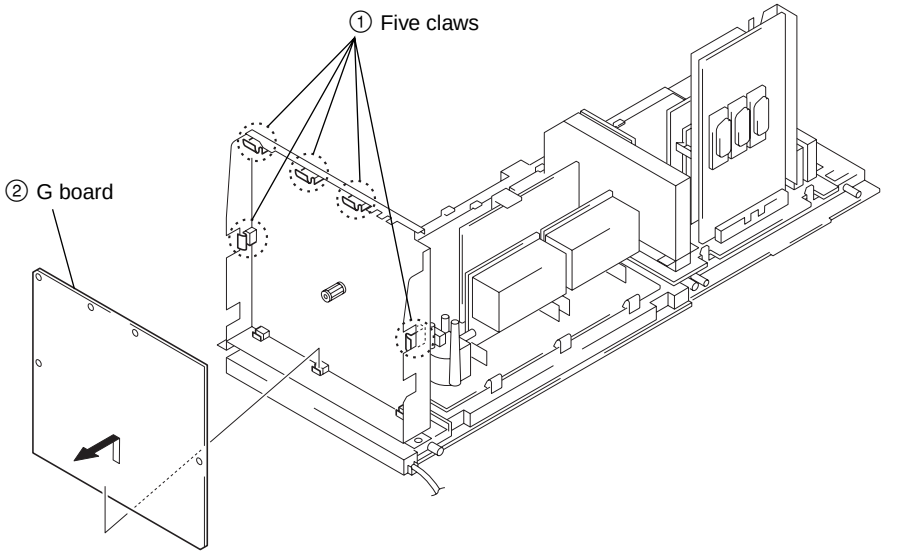
3-9. TERMINAL BOARD REMOVAL



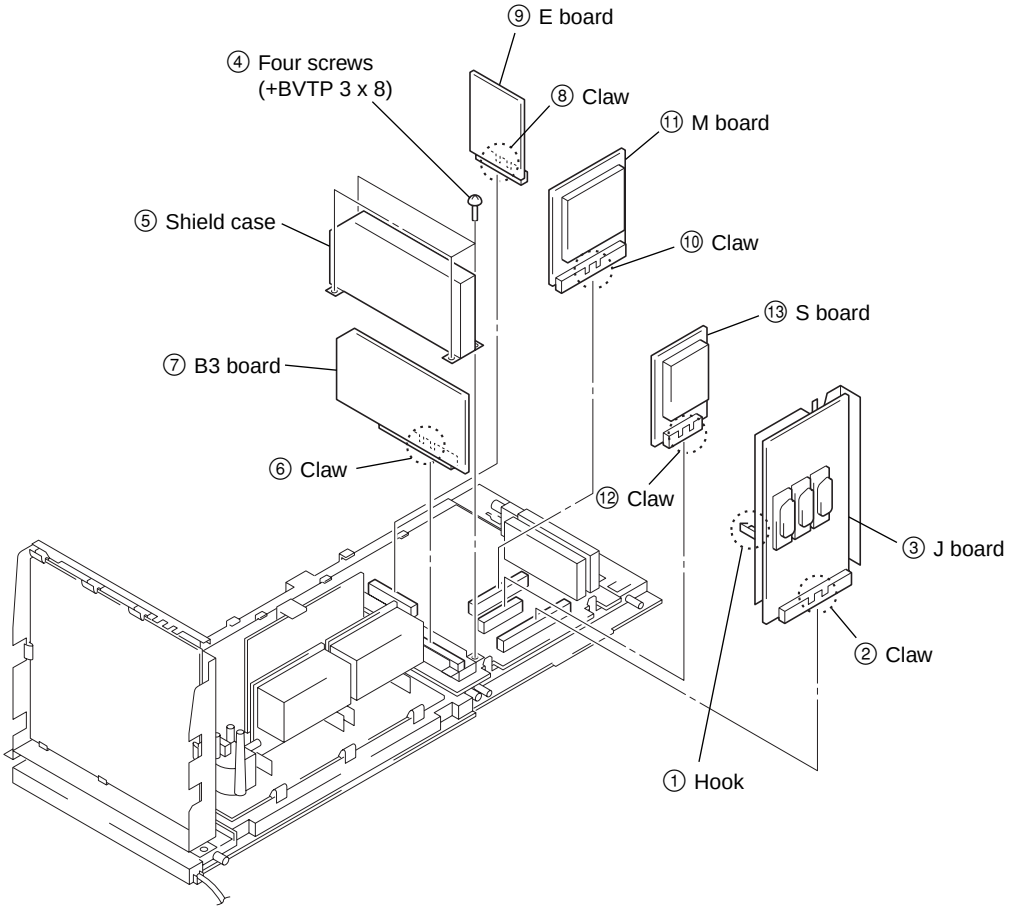
3-10. AP AND D BOARDS REMOVAL



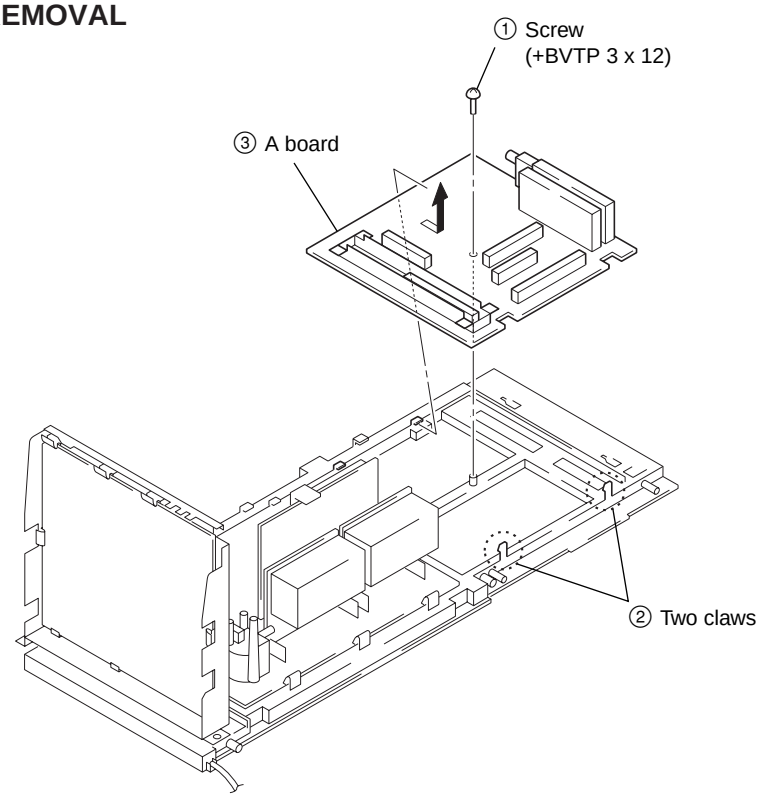
3-11. G BOARD REMOVAL



3-12. J, B3, E, M AND S BOARDS REMOVAL

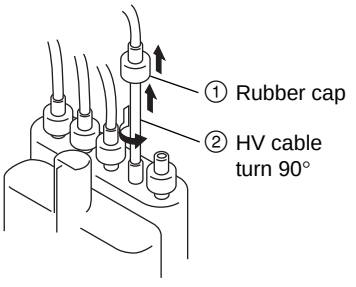


3-13. A BOARD REMOVAL

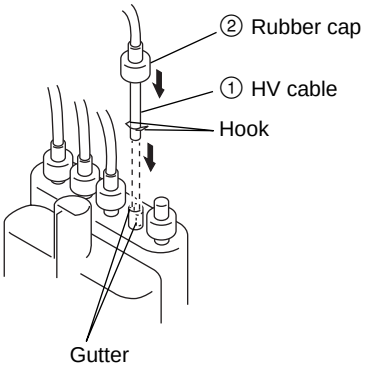


3-14. HIGH-VOLTAGE CABLE REMOVAL AND INSTALLATION

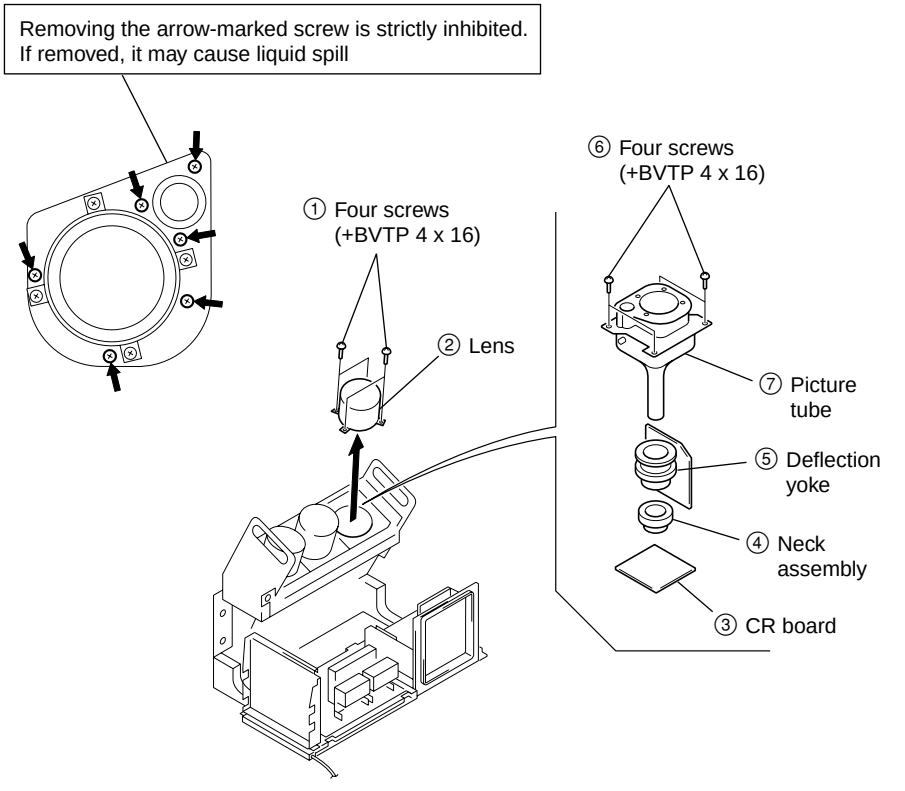
(1) Removal



(2) Installation



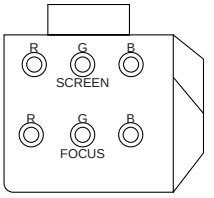
3-15. PICTURE TUBE REMOVAL



SECTION 4
SET-UP ADJUSTMENTS

4-1. SCREEN VOLTAGE ADJUSTMENT (ROUGH ALIGNMENT)

1. Receive the Monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the focus pack all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.



Focus Pack

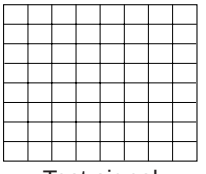
Fig. 4-1

4-2. SCREEN (G2) ADJUSTMENT

1. Turn on the power of the set.
2. Select VIDEO1 mode without signals.
3. Supply DC 175 ±0.5 V from external power supply to TP7103 (KR), TP7203 (KG) or TP7303 (KB) of CR board, CG board and CB board.
3. Adjust red, green and blue screen voltage to until retrace line disappears with screen VR on the focus pack.

4-3. FOCUS ROUGH ADJUSTMENT

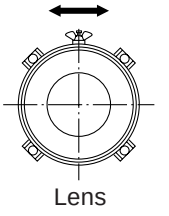
1. Loose the lens screw.
2. Enter the TT mode. (Refer to SECTION 6.)
3. Place the caps on the red and blue lens so that only the green color is shown.
4. Press “MENU” twice on the commander and select “Device Register Setting” ➧ “Projector Engine”, press “⑥” three times on the Commander to display the test signal (cross-hatch) on the screen.



Test signal

Fig. 4-2

5. Rotate the green lens and align to obtain the best lens focus at the center area.
6. Rotate the green focus VR on the focus pack and align to obtain the best electrical focus in the top right corner.
7. Perform the same alignment for red and blue lenses and electric focus.
8. Fix lens screw.



Lens

Fig. 4-3

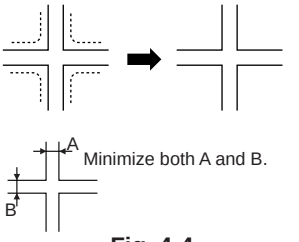
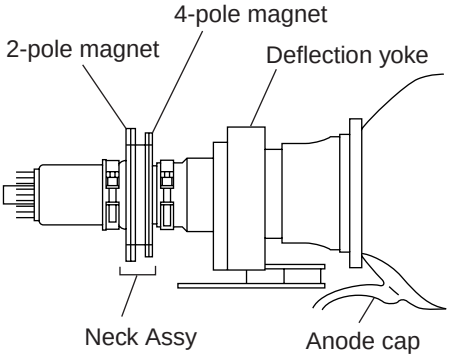


Fig. 4-4

4-4. DEFLECTION YOKE TILT ADJUSTMENT

1. Receive the Monoscope signal.
2. Place the caps on the red and blue lens so that only the green color.
3. Loosen the deflection yoke setscrew and align the tilt of the Deflection yoke so that the bars at the center of the monoscope pattern are horizontal.
4. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.
5. The tilt of the deflection yoke for red and blue is aligned the same as was done for green.



Make sure deflection yoke is touching CRT closely.

Fig. 4-5

4-5. 2-POLE MAGNET ADJUSTMENT

1. Receive the Dot signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Turn the green focus VR on the focus pack to the right and set to over focus to enlarge the spot.
4. Now align the 2-Pole Magnet so that the enlarged spot is in the center of the just focus spot.
   (center of the dot doesn't move)
5. Align the green focus VR and set for just (precise) focus.
6. Perform the same alignment for red and blue.

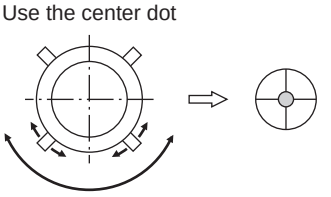


Fig. 4-6

4-6. 4-POLE MAGNET ADJUSTMENT

1. Receive the Dot signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Turn the green focus VR on the focus pack to the left and set to under focus to enlarge the spot.
4. Now align the 4-Pole Magnet so that the enlarged spot becomes a perfect circle.
5. Perform the same alignment for red and blue.

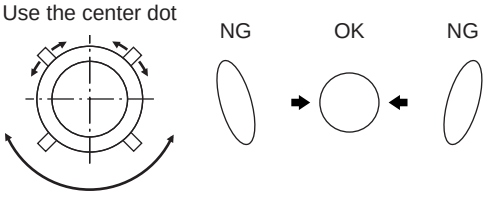


Fig. 4-7

4-7. GREEN, RED AND BLUE FOCUS ADJUSTMENT

4-7-1. Green, Red and Blue Lens Focus Adjustment

1. Receive the Monoscope signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Rotate the green lens and adjust to obtain the best lens focus at the center area.
4. Fix lens screw.
5. Repeat above process for red and blue.

4-7-2. Green, Red and Blue Electrical Focus Adjustment

1. Receive the Monoscope signal.
2. Place the caps on the red and blue lens so that only the green color is shown.
3. Rotate the green focus VR on the focus pack and adjust to obtain the best electrical focus at the center area.
4. Repeat above process for red and blue.

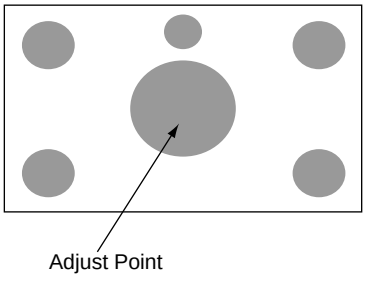


Fig. 4-8

SECTION 5
SAFETY RELATED ADJUSTMENT

When replacing the following components marked with ◪ on the schematic diagram, always check hold-down voltage and if necessary re-adjust.

Part Replaced (⧓)
R9901

Part Replaced (◪)	
D Board	C5123, C5127, C5130, C5143, D5115, D5204, Q5104, R5136, R5138, R5140, R9901, T5102, T5104, T5103 (FBT)

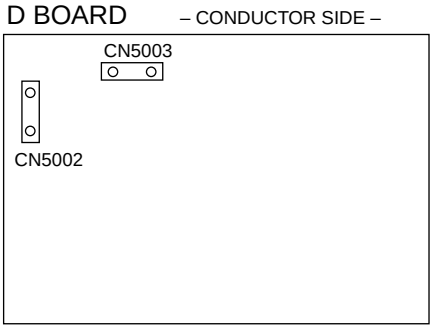


Fig. 5-3

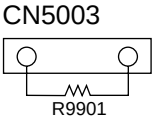


Fig. 5-4

5-1. HV HOLD-DOWN ADJUSTMENT

1. Connect HV static voltmeter to HV Block.
2. Mount a resistor (R9901 : 43 k , 1/4 W, METAL FILM) at CN5003.
3. Remove CN5002 and connect External Power Supply to CN5002 ① pin (+135 V) and ② pin (GND).
4. Turn on the set.

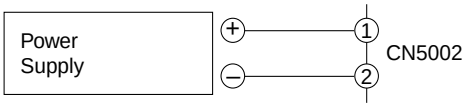


Fig. 5-1

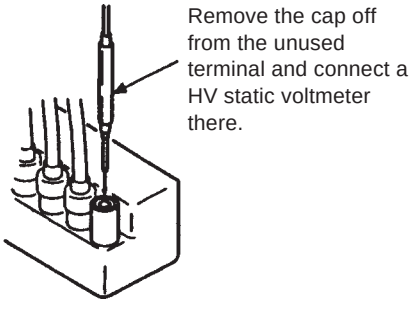


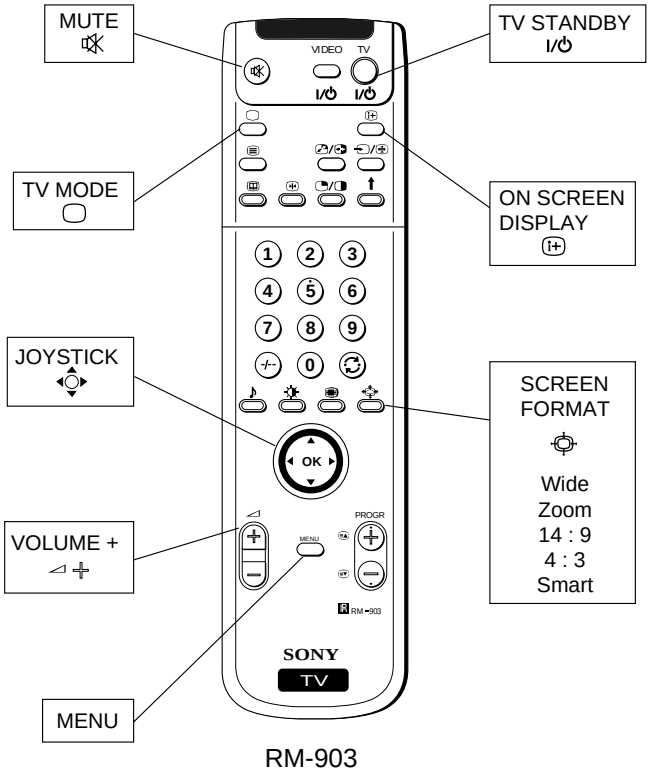
Fig. 5-2

5. Receive the Dot signal and set PICTURE/BRIGHTNESS to minimum.
6. Slowly up the supply voltage from 0 V to 135 V until hold-down circuit works (picture disappear).
7. Read the HV static voltmeter of peak HV voltage.
   Spec : 33.7 ~ 35.3 kV
8. If Hold-down voltage is less than 33.7 kV then replace R9901 of 43 k with that of 39 k , and check if the voltage is within the spec.
9. If hold-down voltage is over than 35.3 kV then replace R9901 of 43 k with that of 47 k , and check if the voltage is within the spec.

SECTION 6
ELECTRICAL ADJUSTMENTS

6-1. ADJUSTMENTS WITH COMMANDER

Service adjustment to this model can performed with the supplied remote commander RM-903.



RM-903

6-1-1. How to Select Each Mode

The adjustment requires the following modes:

	Wide	Zoom	14 : 9	4 : 3	Smart
DRC 100 (PAL)	○	○	○	×	○
DRC 50 (PAL)	○	○	○	×	○
DRC 100 (NTSC)	○	○	○	×	○
DRC 50 (NTSC)	○	○	○	×	○

1. Selection of Mode Between PAL and NTSC

PAL mode : Enter PAL signal.
NTSC mode: Enter NTSC signal. (VIDEO input only)

2. Selection of Digital Mode

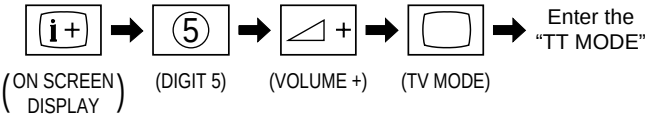
1) Press "MENU" button on the commander, and the menu screen will appear.
2) Press ► key on the joystick to enter the "Picture Adjustment" menu.
3) Press ▲ or ▼ key on the joystick to select "Digital Mode", and press ► key.
4) Press ▲ or ▼ key on the joystick to select"Normal", "DRC50" or "DRC100", and press "◈ (OK)".
5) Press "MENU" button to return to normal screen.
(In the TT mode, the menu is switched to the Service menu)

3. Selection of Screen Format

1) Press "◈ (BLUE)" button on the commander.
2) Press ▲ or ▼ key on the joystick to select "Wide", "Zoom", "14 : 9", "4 : 3" or "Smart", and press "◈ (OK)" button. At this time, normal screen comes back. (In the TT mode, the menu is switched to the Service menu.)

6-1-2. How to Enter TT Mode

1. Turn on the main power switch to place this set in standby mode. (LED will light in red.)
2. Press the buttons on commander as follows, and the TT mode will be selected.



"TT - -" will appear in the top right corner of the screen. Other status information will also be displayed.

3. If "▭ (TV MODE)" button or "⓪" + "⓪" button is pressed, the set exits from the TT mode and returns to normal TV mode.

6-1-3. How to Enter Service Menu

1. Enter the TT mode.
2. Press "MENU" button on the commander once, and normal menu screen will appear, or press it once more, and the following service menu screen will appear.

```
Service AE5(A)

Initialising
Reset Devices
Monitoring
Device Register Setting
Special Adjustment

Select :▲▼  Next menu :►
```

3. Following the screen, press ▲ or ▼ key on the joystick to select the desired item, and press ► key to enter the selected item.
4. Press ▲ or ▼ key on the joystick to change data of each item, and press "◈ (OK)" button to write changed data.
(Except Projector Engine mode)
5. To return from each item, press ◄ key on the joystick. Or, to return to the TT mode, press the "MENU" button.
(Except Projector Engine mode)

6-1-4. Screen Display for Service Menu

If each item of service menu is selected, the following screen is displayed.

- **Initialising**

```
Initialising

Model Setting
Destination Setting
Basic Setting
Feature Setting

Select : ▲▼  Next menu : ▶
```

- **Initialising ➔ Model Setting**

```
Model Setting

 1  KV-29FX60
 2  KV-29FC60
 3  KV-29FS60
 4  KV-28FX60
 5  KV-32FX60
 6  KV-32FS60
 7  KV-28FC60
 8  KV-32FC60
 9  KV-28FC60Z
10  KV-32FC60Z
11  KV-28FS70
12  KV-32FS70
13  KV-36FS70
14  KP-48PS1
15  KP-53PS1
16  KP-61PS1
17  KP-44PS2
18  KP-51PS2
19  KF-50SX100

Select : ▲▼  Last menu : ◀  Set Model : ▶
```

- **Initialising ➔ Destination Setting**

```
Destination Setting

Multi
A
B
D
E
K
R
U

Select : ▲▼  Last menu : ◀  Set Dest. : ▶
```

- **Initialising ➔ Basic Setting**

```
Basic Setting

No  Descr.              Min     Max    Data

 1  Sys. B/G            OFF      ON      ON
 2  Sys. D/K            OFF      ON      ON
 3  Sys. L              OFF      ON      ON
 4  Sys. I (UK)         OFF      ON      ON
 5  Sys. I (IRL)        OFF      ON      ON
 6  TXT Nat. Option       1       4       3
 7  Simple PAT          OFF      ON     OFF
 8  16 : 9 CRT          OFF      ON      ON
 9  Sub-Woofer          OFF      ON     OFF
10  Auto Stand-By       OFF      ON      ON
11  Comb-Filter         OFF      ON      ON
12  Auto YC det         OFF      ON      ON
13  Auto Comb det       OFF      ON      ON
14  AV2 Available       OFF      ON      ON
15  AV3 Available       OFF      ON      ON
16  AV4 Available       OFF      ON      ON
17  AV3 Front & Rear    OFF      ON     OFF
18  SECAM Tape          OFF      ON      ON
19  AV1 Sound Mute      OFF      ON     OFF

Select : ▲▼  Last menu : ◀  Enter Item : ▶
```

- **Initialising ➔ Feature Setting**

```
Feature Setting

No  Descr.              Min     Max    Data

 1  PAP                 OFF      ON      ON
 2  PAT                 OFF      ON      ON
 3  INDEX               OFF      ON      ON
 4  EPG                 OFF      ON      ON
 5  Full EPG            OFF      ON      ON
 6  PictBoostBypass     OFF      ON     OFF

Select : ▲▼  Last menu : ◀  Enter Item : ▶
```

- **Reset Devices**

```
Reset Devices

Backend
Deflection
Ext. Deflection
Dynamic Convergence
Colour Decoder 1
Colour Decoder 2
Audio/Video Switch
MID-X
External PLL MID-X
Panorama Chip
Autowide
Sound
Picture Booster

Select : ▲▼  Last menu : ◀  Reset Dev. : ▶
```

• **Monitoring**

```
Monitoring

Device Status Monitor
Error Monitor
Production Monitor
NVM Monitor
Format Monitor
CNI Monitor

Select :▲▼  Next menu :►
```

• **Device Register Setting**

```
Device Register Setting

Backend
Deflection
Ext. Deflection
Dynamic Convergence
Colour Decoder 1
Colour Decoder 2
Audio/Video Switch
MID-X
External PLL MID-X
Panorama Chip
Autowide
Sound
Projector Engine
Picture Booster

Select :▲▼  Next menu :►
```

• **Device Register Setting ➔ Backend**

Backend

No	Descr.	Def.	Min	Max	Data
1	D-Col	OFF	OFF	ON	OFF
2	Contrast	44	0	63	31
3	Limit-Lvl	3	0	3	3
4	Hue	32	0	63	32
5	Colour	31	0	63	26
6	CTI-Level	2	0	3	2
7	Brightness	31	0	63	31
8	Gamma	3	0	3	3
9	Sharpness	31	0	63	16
10	R-Drive	31	0	63	27
11	G-Drive	31	0	63	31
12	B-Drive	31	0	63	25
13	Sub Bright	31	0	63	31
14	VM-Level	2	0	3	2
15	R-Cutoff	31	0	63	31
16	Pre/Over	2	0	3	2
17	G-Cutoff	31	0	63	31
18	DPIC-Level	1	0	3	1
19	B-Cutoff	31	0	63	31
20	DC-Tran.	0	0	3	0
21	Sub-Cont.	10	0	15	10
22	LRGB2-Lvl	8	0	15	8
23	P-Abl	15	0	15	15
24	Sharp. F0	ON	OFF	ON	ON
25	CB-Offset1	7	0	15	7
26	CR-Offset1	7	0	15	7
27	CB-Offset2	7	0	15	7
28	CR-Offset2	7	0	15	7
29	Sub Colour	0	–8	8	–1

Select :▲▼ Last menu :◄ Enter Item :►

• **Device Register Setting ➡ Deflection**

Deflection

No	Descr.	Def.	Min	Max	Data
1	V-Size	31	0	63	34
2	V-Position	31	0	63	36
3	V-Comp	1	0	3	1
4	V-Linear	7	0	15	7
5	S-Corr	7	0	15	7
6	H-Size	31	0	63	51
7	Ew-Dc	OFF	OFF	ON	OFF
8	Pin-Amp	31	0	63	31
9	Up-CPin	31	0	63	31
10	M-Pin	2	0	3	2
11	Lo-CPin	31	0	63	31
12	Trapezium	7	0	15	7
13	H-Position	31	0	63	47
14	AFC-Bow	7	0	15	7
15	AFC-Angle	7	0	15	7
16	Up-Vlin	0	0	15	0
17	Lo-Vlin	0	0	15	0
18	MPIP PAmp	–5	–10	10	–5
19	MPIP UCPin	0	–10	10	0
20	MPIP LCPin	0	–10	10	0
21	MPIP Trap	0	–10	10	0
22	EPG PAmp	–3	–10	10	–3
23	EPG UCPin	0	–10	10	0
24	EPG LCPin	1	–10	10	1
25	EPG Trap	0	–10	10	0

Select : ▲▼ Last menu : ◄ Enter Item : ►

• **Device Register Setting ➡ EXT. Deflection**

EXT. Deflection

No	Descr.	Def.	Min	Max	Data
1	Linearity	127	0	255	127
2	H Centre	31	0	63	31
3	H Trap	31	0	63	31
4	Rotation	0	0	255	0
5	FocusPhase	127	0	255	127

Select : ▲▼ Last menu : ◄ Enter Item : ►

• **Device Register Setting ➡ Dynamic Convergence**

Dynamic Convergence

No	Descr.	Def.	Min	Max	Data
1	Range	63	0	63	63
2	H stat	33	0	63	33
3	H amp l	37	0	63	37
4	H amp r	36	0	63	36
5	Up Y	31	0	63	31
6	Low Y	33	0	63	33
7	Y up l	30	0	63	30
8	Y up r	30	0	63	30
9	Y low l	31	0	63	31
10	Y low r	30	0	63	30
11	Mbow up l	31	0	63	31
12	Mbow up r	32	0	63	32
13	Mbow low l	32	0	63	32
14	Mbow low r	32	0	63	32
15	V stat	32	0	63	32
16	TCorPCtrl	OFF	OFF	ON	OFF
17	TopCorPin	31	0	63	31
18	BCorPCtrl	OFF	OFF	ON	OFF
19	BotCorPin	31	0	63	31

Select : ▲▼ Last menu : ◄ Enter Item : ►

• **Device Register Setting ➡ Colour Decoder 1**

Colour Decoder 1

No	Descr.	Def.	Min	Max	Data
1	TINT	31	0	63	31
2	SUB COLOUR	7	0	15	7
3	SUB CONTR	7	0	15	7
4	SHARP GAIN	8	0	15	8
5	Y-OUT LEV.	50	0	63	40
6	C-OUT LEV.	50	0	63	45
7	Y-DL	8	0	10	3
8	Cr OFF. 1	7	0	15	7
9	Cb OFF. 1	7	0	15	7
10	Cr OFF. 2	7	0	15	7
11	Cb OFF. 2	7	0	15	7
12	V CD FREQ	3	0	7	3
13	V CD MODE	1	0	3	1
14	MVM	OFF	OFF	ON	OFF
15	S R-Y ADJ	7	0	15	7
16	S B-Y ADJ	2	0	15	5
17	BELL/HPF	2	0	3	2
18	BELL F0	OFF	OFF	ON	OFF
19	S GP	0	0	3	0

Select : ▲▼ Last menu : ◄ Enter Item : ►

• **Device Register Setting ➡ Colour Decoder 2**

Colour Decoder 2

No	Descr.	Def.	Min	Max	Data
1	TINT	31	0	63	31
2	SUB COLOUR	7	0	15	7
3	SUB CONTR	7	0	15	7
4	SHARP GAIN	8	0	15	8
5	Y-OUT LEV.	50	0	63	31
6	C-OUT LEV.	50	0	63	45
7	Y-DL	8	0	10	3
8	Cr OFF. 1	7	0	15	7
9	Cb OFF. 1	7	0	15	7
10	Cr OFF. 2	7	0	15	7
11	Cb OFF. 2	7	0	15	7
12	V CD FREQ	3	0	7	3
13	V CD MODE	1	0	3	1
14	MVM	OFF	OFF	ON	OFF
15	S R-Y ADJ	7	0	15	7
16	S B-Y ADJ	2	0	15	5
17	BELL/HPF	2	0	3	2
18	BELL F0	OFF	OFF	ON	OFF
19	S GP	0	0	3	0

Select : ▲▼ Last menu : ◄ Enter Item : ►

• **Device Register Setting ➡ MID-X**

MID-X

No	Descr.	Def.	Min	Max	Data
1	M H POS	0	–31	31	0
2	S H POS	0	–8	8	0
3	D YS SEL	1	0	3	1
4	D YS DELAY	7	0	7	7
5	D SYNC MOD	ON	OFF	ON	ON
6	Text Sharp	OFF	OFF	ON	OFF

Select : ▲▼ Last menu : ◄ Enter Item : ►

• **Device Register Setting ➡ External PLL MID-X**

External PLL MID-X

No	Descr.	Def.	Min	Max	Data
1	VCO7-0PAL	184	0	255	184
2	VCO7-0NTSC	172	0	255	172
3	VCO11-8	6	0	15	6
4	DIV1, 2, 4, 8	2	0	3	2
5	Fine Delay	0	0	63	0
6	Coar. Delay	0	0	3	0
7	Ch. Pump	0	0	3	0
8	PD Pol.	ON	OFF	ON	ON
9	DSync Wdth	3	0	3	3
10	Dsync Del	OFF	OFF	ON	OFF
11	Sync Pol	ON	OFF	ON	ON
12	DSync Pol	ON	OFF	ON	ON
13	Clk En	ON	OFF	ON	ON
14	NClk En	OFF	OFF	ON	OFF
15	Clk/2 En	OFF	OFF	ON	OFF
16	NClk/2 En	OFF	OFF	ON	OFF
17	DSync En	ON	OFF	ON	ON
18	Unlock En	OFF	OFF	ON	OFF
19	VCO Bypass	ON	OFF	ON	ON
20	Synth Pwr	ON	OFF	ON	ON
21	Rdout Pwr	OFF	OFF	ON	OFF
22	DIVOUT En	ON	OFF	ON	ON
23	DSync Byp	OFF	OFF	ON	OFF
24	DSync Hold	OFF	OFF	ON	OFF

Select : ▲▼ Last menu : ◄ Enter Item : ►

• **Device Register Setting ➡ Panorama Chip**

Panorama Chip

No	Descr.	Def.	Min	Max	Data
1	ROM speed	25	0	255	25
2	Prog. No.	0	0	11	3
3	HSize Offs	3	0	15	3
4	IMODE	0	0	255	0
5	Disable	OFF	OFF	ON	OFF
6	Send AUX	OFF	OFF	ON	OFF
7	AUX0	67	0	255	67
8	AUX1	0	0	255	0
9	AUX2	68	0	255	68
10	AUX3	0	0	255	0
11	AUX4	12	0	255	12
12	AUX5	81	0	255	81
13	AUX6	7	0	255	7
14	AUX7	0	0	255	0
15	AUX8	65	0	255	65
16	AUX9	244	0	255	244
17	AUX10	32	0	255	32
18	AUX11	209	0	255	209
19	AUX12	7	0	255	7
20	AUX13	0	0	255	0

Select : ▲▼ Last menu : ◄ Enter Item : ►

• Device Register Setting ➧ Autowide

Autowide

No	Descr.	Def.	Min	Max	Data
1	Upara	ON	OFF	ON	ON
2	Upthin	OFF	OFF	ON	OFF
3	Enjtoz	OFF	OFF	ON	OFF
4	X149J	ON	OFF	ON	ON
5	Syncslc	OFF	OFF	ON	OFF
6	Tm	1	0	3	1
7	Uprlvl	OFF	OFF	ON	OFF
8	Ofslvl	OFF	OFF	ON	OFF
9	Alpf	3	0	3	3
10	eddec2	3	0	3	3
11	Lnstblz	ON	OFF	ON	ON
12	Lnhys	OFF	OFF	ON	OFF
13	Drkpri	ON	OFF	ON	ON

Select : ▲▼ Last menu : ◄ Enter Item : ►

• Device Register Setting ➧ Sound

Sound

No	Descr.	Def.	Min	Max	Data
1	Carr.-Mute	ON	OFF	ON	ON
2	SCART1 Vol	79	0	127	79
3	SCART2 Vol	79	0	127	79
4	SCART-Pr.	27	0	127	27
5	I2S1-Pr.	16	0	127	16
6	I2S2-Pr.	16	0	127	16
7	FM Pr.	27	0	127	27
8	BG Nic. Pr.	53	0	127	53
9	L Nic. Pr.	59	0	127	59
10	DK Nic.Pr.	53	0	127	53
11	I Nic. Pr.	97	0	127	97
12	Irl NicPr.	97	0	127	97
13	SubW. Vol.	0	–127	0	0
14	Bass Offs	0	–3	3	0
15	TrebleOffs	2	–3	3	2
16	Loudn. Offs	0	0	9	0
17	HP-VolOffs	–2	–5	5	–2
18	M-S Limit	30	–128	127	30
19	M-B Limit	–30	–128	127	–30
20	S-M Limit	12	–128	127	12
21	S-B Limit	–20	–128	127	–20
22	B-M Limit	–12	–128	127	–12
23	B-S Limit	20	–128	127	20
24	Err. Max	40	0	255	40
25	Err. Min	18	0	255	18
26	Vol.Offset	–3	–6	0	–3

Select : ▲▼ Last menu : ◄ Enter Item : ►

• Device Register Setting ➧ Picture Booster

Picture Booster

No	Descr.	Def.	Min	Max	Data
1	DEM	OFF	OFF	ON	OFF

Select : ▲▼ Last menu : ◄ Enter Item : ►

• Special Adjustment

Special Adjustment

No	Descr.	Min	Max	Data
1	RGB Level	0	7	0
2	RGB Gain	0	31	6
3	RGB PAT Level	0	7	0
4	RGB PAT Gain	0	31	12
5	Extra FW	0	255	255
6	EPG ChkS Check	OFF	ON	ON
7	Slicer High	OFF	ON	ON
8	FCW Wide	OFF	ON	OFF
9	Mpeg NR	OFF	ON	OFF
10	Notch Filter	OFF	ON	OFF
11	NLD step	–7	0	–1
12	PKD step	–15	0	–5
13	CRD step	0	15	5
14	SHP step	–7	0	–5
15	COL step	–7	0	–1
16	NTSC AutoYc AV2	OFF	ON	ON
17	NTSC AutoYc AV3	OFF	ON	ON
18	RGB Disable	OFF	ON	OFF
19	Telop C/M	OFF	ON	ON
20	Intern GD	OFF	ON	OFF
21	AV2 YC mix out	OFF	ON	OFF
22	Line 318 TXT	OFF	ON	OFF

Select : ▲▼ Last menu : ◄Enter Item : ►

6-1-5. Service List (Projector Engine)

: Fixed data. xxxx : Cannot change.

Item		Data Range	Standard Data																Name/Description
			DRC 100 (PAL)				DRC 50 (PAL)				DRC100 (NTSC)				DRC 50 (NTSC)				
No.	Name		Wide	Zoom	14 : 9	Smart	Wide	Zoom	14 : 9	Smart	Wide	Zoom	14 : 9	Smart	Wide	Zoom	14 : 9	Smart	
00	FDIS	00, 01	00				00				00				00				Switch of display for fine adjustment data
01	COPY	00, 01	00				00				00				00				Service copy adjustment
02	ALCP	00, 01	00				00				00				00				Service all copy adjustment
03	OSDH	01 ~ 255	26				26				26				26				OSD horizontal position of PJED service menu
04	OSDV	01 ~ 255	32	52			75	116			24	42			62	99			OSD vertical position of PJED service menu
05	FVSL	00 ~ 15	00	14	15		00	14	15		00	14	15		00	14	15		Start position of fine adjustment
06	FVSP	00 ~ 255	05	17	09		15	39	23		05	16	17		14	29	35		Start line of fine adjustment
07	V1DL	00 ~ 255	01	77	48		01	148	96		01	52	23		01	135	59		Value of V1 delay
08	V1CU	00 ~ 4095	750	985	880		375	491	440		897	1183	1001		449	592	501		Value of V1 count up
09	V1OH	00 ~ 255	40				37				30	03	20		31				Value of V1 offset higher data
10	V1OL	00 ~ 255	00				00				01				01				Value of V1 offset lower data
11	OEVP	00 ~ 4095	1056				1056				1056				1056				Odd/Even select position
12	COHP	00 ~ 4095	4095				4095				4095				4095				Horizontal phase for rough adjustment
13	34CS	00 ~ 31	14				14				14				14				Start center clamp position of H3 and H4 pulse
14	34CW	00 ~ 31	00				00				00				00				Width center clamp position of H3 and H4 pulse
15	FIHP	00 ~ 4095	1110				1110				1110				1110				Horizontal phase for fine adjustment
16	TPHP	00 ~ 4095	67				67				67				67				Horizontal phase for test pattern
17	TPVP	00 ~ 255	26	58	46		53	117	93		20	49	33		47	103	71		Vertical phase for test pattern
18	DFHP	00 ~ 4095	100				100				100				100				Horizontal phase for dynamic focus
19	DFHG	—128 ~ 127	—90				—90				—90				—90				Value of horizontal parabola wave for dynamic focus
20	DFVG	—128 ~ 127	—40				—40				—40				—40				Value of vertical parabola wave for dynamic focus
21	DFDC	—128 ~ 127	127				127				127				127				Value of center for dynamic focus
22	DFV1	—128 ~ 127	00				00				00				00				Value of V1 saw wave for dynamic focus
23	SDHP	00 ~ 4095	00				00				00				00				Compensation of horizontal phase for shading
24	SDH1	—128 ~ 127	00				00				00				00				Value of horizontal saw wave for dynamic focus
25	RVCS	00 ~ 31	00				00				00				00				Start position of RED vertical clamp
26	RVCW	00 ~ 31	00				00				00				00				Width of RED vertical clamp
27	GVCS	00 ~ 31	00				00				00				00				Start position of GREEN vertical clamp
28	GVCW	00 ~ 31	00				00				00				00				Width of GREEN vertical clamp
29	BVCS	00 ~ 31	00				00				00				00				Start position of BLUE vertical clamp
30	BVCW	00 ~ 31	00				00				00				00				Width of BLUE vertical clamp
31	RHCS	00 ~ 31	00				00				00				00				Start position of RED horizontal clamp
32	RHCW	00 ~ 31	00				00				00				00				Width of RED horizontal clamp
33	GHCS	00 ~ 31	00				00				00				00				Start position of GREEN horizontal clamp
34	GHCW	00 ~ 31	00				00				00				00				Width of GREEN horizontal clamp
35	BHCS	00 ~ 31	00				00				00				00				Start position of BLUE horizontal clamp
36	BHCW	00 ~ 31	00				00				00				00				Width of BLUE horizontal clamp
37	BDVU	00 ~ 2047	23	18	27	21	23	18	27	21	23	18	27	21	23	18	27	21	Vertical position for border line 1
38	BDVL	00 ~ 2047	905	686	1061	811	905	686	1061	811	905	686	1061	811	905	686	1061	811	Vertical position for border line 2
39	BDHL	00 ~ 2047	159				159				159				159				Horizontal position for border line 1
40	BDHR	00 ~ 2047	1253				1253				1253				1253				Horizontal position for border line 2
41	HBLD	00 ~ 4095	00				00				00				00				Horizontal phase for output of H.Blank out
42	HBLW	00 ~ 4095	00				00				00				00				Width for output of H.Blank out
43	PWM2	00 ~ 4095	00				00				00				00				PWM2 output width setting of Regi. IC
44	COGV	—128 ~ 127	00				00				00				00				GREEN vertical center offset data for Auto Regi.
45	CORV	—128 ~ 127	00				00				00				00				RED vertical center offset data for Auto Regi.
46	COBV	—128 ~ 127	00				00				00				00				BLUE vertical center offset data for Auto Regi.
47	COGH	—128 ~ 127	00				00				00				00				GREEN horizontal center offset data for Auto Regi.
48	CORH	—128 ~ 127	00				00				00				00				RED horizontal center offset data for Auto Regi.
49	COBH	—128 ~ 127	00				00				00				00				BLUE horizontal center offset data for Auto Regi.

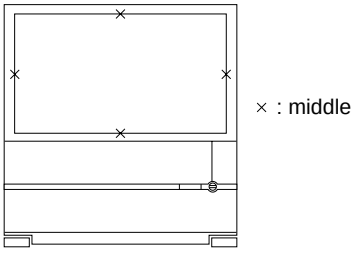
Item		Data Range	Standard Data																Name/Description
No.	Name		DRC 100 (PAL)				DRC 50 (PAL)				DRC100 (NTSC)				DRC 50 (NTSC)				
			Wide	Zoom	14 : 9	Smart	Wide	Zoom	14 : 9	Smart	Wide	Zoom	14 : 9	Smart	Wide	Zoom	14 : 9	Smart	
50	SOGV	–128 ~ 127	00				00				00				00				GREEN vertical skew offset data for Auto Regi.
51	SORV	–128 ~ 127	00				00				00				00				RED vertical skew offset data for Auto Regi.
52	SOBV	–128 ~ 127	00				00				00				00				BLUE vertical skew offset data for Auto Regi.
53	SOGH	–128 ~ 127	00				00				00				00				GREEN horizontal skew offset data for Auto Regi.
54	SORH	–128 ~ 127	00				00				00				00				RED horizontal skew offset data for Auto Regi.
55	SOBH	–128 ~ 127	00				00				00				00				BLUE horizontal skew offset data for Auto Regi.
56	ZOGH	–128 ~ 127	00				00				00				00				GREEN horizontal size offset data for Auto Regi.
57	ZORH	–128 ~ 127	00				00				00				00				RED horizontal size offset data for Auto Regi.
58	ZOBH	–128 ~ 127	00				00				00				00				BLUE horizontal size offset data for Auto Regi.
59	LOGH	–128 ~ 127	00				00				00				00				GREEN horizontal linearity offset data for Auto Regi.
60	LORH	–128 ~ 127	00				00				00				00				RED horizontal linearity offset data for Auto Regi.
61	LOBH	–128 ~ 127	00				00				00				00				BLUE horizontal linearity offset data for Auto Regi.
62	ERR	00 ~ 255	00				00				00				00				Auto Regi. Error code
63	ADTM	00 ~ 127	80				80				120				120				A/D data input timing of Auto Regi.
64	VUP	00 ~ 2047	31				31				45				45				Auto Regi. Pattern upper vertical position
65	VUPM	00 ~ 2047	00				00				00				00				Auto Regi. Pattern upper middle vertical position
66	VMID	00 ~ 2047	290				290				475				475				Auto Regi. Pattern middle vertical position
67	VLOM	00 ~ 2047	00				00				00				00				Auto Regi. Pattern lower middle vertical position
68	VLOW	00 ~ 2047	560				560				930				930				Auto Regi. Pattern lower vertical position
69	HLE	00 ~ 4095	135				135				135				135				Auto Regi. Pattern left horizontal position
70	HLEM	00 ~ 4095	00				00				00				00				Auto Regi. Pattern left middle horizontal position
71	HMID	00 ~ 4095	640				640				645				645				Auto Regi. Pattern middle horizontal position
72	HRIM	00 ~ 4095	00				00				00				00				Auto Regi. Pattern right middle horizontal position
73	HRIV	00 ~ 4095	1170				1170				1170				1170				Auto Regi. Pattern right horizontal position
74	SFTF	00, 01	00				00				00				00				Switch of shift fast 00 : Normal 01 : Quick
75	ACTL	00 ~ 255	00				00				00				00				Account time counter lower byte
76	ACTH	00 ~ 255	00				00				00				00				Account time counter higher byte
77	SLSW	00 ~ 03	00				00				00				00				Auto Regi. Adjustment item select
GRN	CENT	–512 ~ 511	000/000				000/000				000/000				000/000				GREEN Horizontal/Vertical center
	SKEW	–512 ~ 511	000/000				000/000				000/000				000/000				GREEN Horizontal/Vertical skew
	SIZE	–512 ~ 511	000/–200				000/–200				000/–200				000/–200				GREEN Horizontal/Vertical size
	LIN	–512 ~ 511	000/000				000/000				000/000				000/000				GREEN Horizontal/Vertical linearity
	KEY	–512 ~ 511	xxxx/000				xxxx/000				xxxx/000				xxxx/000				GREEN Vertical keystone
	PIN	–512 ~ 511	000/250				000/250				000/250				000/250				GREEN Horizontal/Vertical pincushion
	MLIN	–512 ~ 511	000/xxxx				000/xxxx				000/xxxx				000/xxxx				GREEN Horizontal mid linearity
	MSIZ	–512 ~ 511	000/xxxx				000/xxxx				000/xxxx				000/xxxx				GREEN Horizontal mid size
BLU	CENT	–512 ~ 511	000/000				000/000				000/000				000/000				BLUE Horizontal/Vertical center
	SKEW	–512 ~ 511	000/000				000/000				000/000				000/000				BLUE Horizontal/Vertical skew
	SIZE	–512 ~ 511	000/–200				000/–200				000/–200				000/–200				BLUE Horizontal/Vertical size
	LIN	–512 ~ 511	000/000				000/000				000/000				000/000				BLUE Horizontal/Vertical linearity
	KEY	–512 ~ 511	xxxx/000				xxxx/000				xxxx/000				xxxx/000				BLUE Vertical keystone
	PIN	–512 ~ 511	000/250				000/250				000/250				000/250				BLUE Horizontal/Vertical pincushion
	MLIN	–512 ~ 511	000/xxxx				000/xxxx				000/xxxx				000/xxxx				BLUE Horizontal mid linearity
	MSIZ	–512 ~ 511	000/xxxx				000/xxxx				000/xxxx				000/xxxx				BLUE Horizontal mid size
RED	CENT	–512 ~ 511	000/000				000/000				000/000				000/000				RED Horizontal/Vertical center
	SKEW	–512 ~ 511	000/000				000/000				000/000				000/000				RED Horizontal/Vertical skew
	SIZE	–512 ~ 511	000/–200				000/–200				000/–200				000/–200				RED Horizontal/Vertical size
	LIN	–512 ~ 511	000/000				000/000				000/000				000/000				RED Horizontal/Vertical linearity
	KEY	–512 ~ 511	xxxx/000				xxxx/000				xxxx/000				xxxx/000				RED Vertical keystone
	PIN	–512 ~ 511	000/250				000/250				000/250				000/250				RED Horizontal/Vertical pincushion
	MLIN	–512 ~ 511	000/xxxx				000/xxxx				000/xxxx				000/xxxx				RED Horizontal mid linearity
	MSIZ	–512 ~ 511	000/xxxx				000/xxxx				000/xxxx				000/xxxx				RED Horizontal mid size

6-2. REGISTRATION ADJUSTMENT

6-2-1. Setup for Adjustment

1. Marking

1) At the 4 insides of the screen, locate the middle. Use a tape measure to identify the middle.



2. Data Setting

1) Set DRC100 (PAL-Wide) mode.
2) Enter the Service menu, and select "Device Register Setting" ➧ "Projector Engine".
3) Press "⑦" + "⓪" (READ) buttons on the commander to read the data from NVM. Then all the default data are restored.

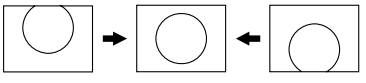
Note : When you replaced printed circuit boards or devices or CRTs, and when correction is drastically necessary, press "⑤" + "⓪" (PJE INITIAL) buttons to initialize the data in the Projector Engine mode.
Press "🔇 (MUTE)" + "⓪" buttons on the commander to write the data.

6-2-2. Main Deflection Adjustment

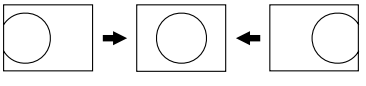
The data values are same in all modes, and therefore the adjustment for the DRC100 (PAL-Wide) mode only is performed here.

1. Place the caps on the red and blue lenses so that only the green color is displayed.
2. Enter the PAL SPCB signal to set the DRC100 (PAL) mode.
3. Set the screen format to "Wide".
4. Enter the Service menu, and select "Device Register Setting" ➧ "Deflection".
5. Adjust "2 V-Position" and "13 H-Position" so that the picture is displayed in the center of screen.

2 V-Position



13 H-Position

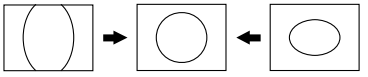


5. Adjust "1 V-Size" and "6 H-Size" so that the picture size is within the specification.

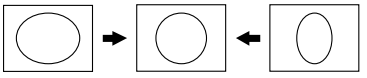
SPEC Overscan Spec. = 7.5%

Input Signal	H SIZE	V SIZE
PAL SPCB	16.7 ± 0.1 sq.	12.5 ± 0.1 sq.

1 V-Size



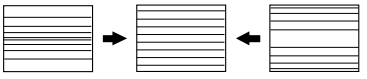
6 H-Size



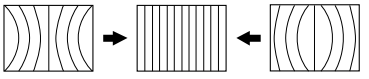
6. Adjust the following items so as to attain the optimum picture.

4 V-Linear

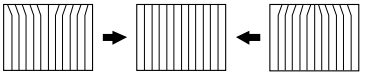
5 S-Corr



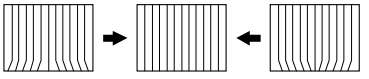
8 Pin Amp



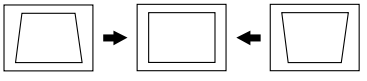
9 Up-CPin



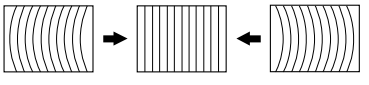
11 Lo-CPin



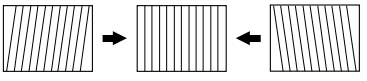
12 Trapezium



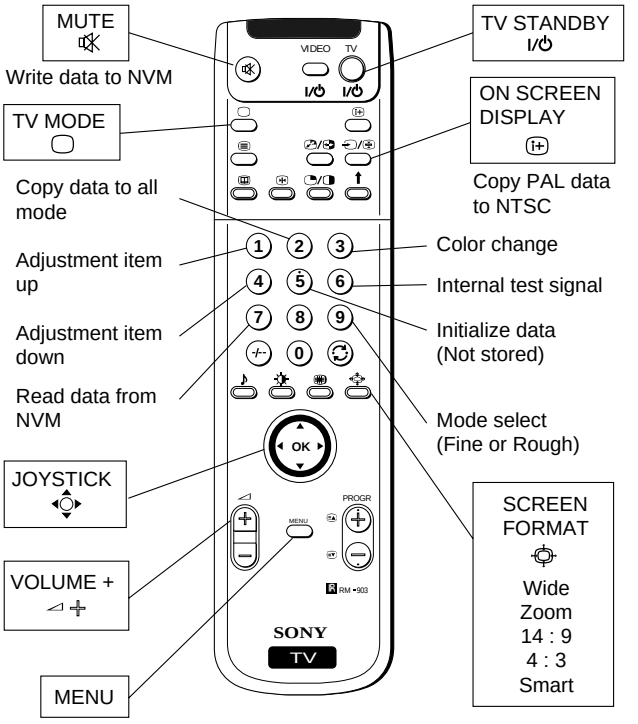
14 AFC-Bow



15 AFC-Angle



6-2-3. Operation Method for Projector Engine Mode



1. Functions of Keys on Commander

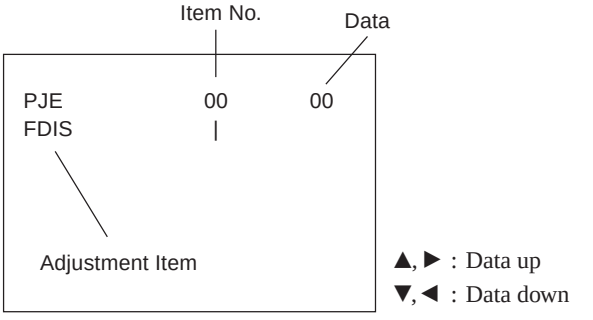
- ① : Changes adjustment item. (item No. moves up)
  : Marker moves clockwise from center to outside. (in fine adjustment mode)
- ④ : Changes adjustment item. (item No. moves down)
  : Marker moves counterclockwise from outside to center. (in fine adjustment mode)
- ▲▼◄► : Changes data value. (up or down)
  : Marker moves up, down, or to the left or right. (in fine adjustment mode)
- ③ : Changes adjustment color. (except item No. 00~77) GRN ➔ BLU ➔ RED
- ⑥ : Displays or changes internal test signals.
  : crosshatch + external signal ➔ dot + external signal ➔ crosshatch only ➔ dot only ➔ off
- ⑨ : Switches adjustment mode. rough adjustment mode ➔ fine adjustment mode
- (OK): Switches marker moving method. (in fine adjustment mode) joystick (▲, ▼, ◄, ►) keys ➔ ① and ④ buttons

Commander Function

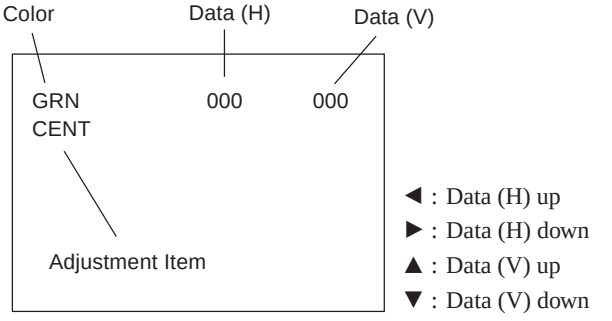
Buttons	Mode	Description
🔇 + ⓪	WRITE	Writes data to NVM.
⑦ + ⓪	READ	Reads data from NVM.
⑤ + ⓪	PJE INITIAL	Service data initialization. Not stored. (Be sure not to use usually)
② + ⓪	PJE COPY	Copies and writes data of DRC1250 (50Hz) mode to all other modes.
i+ + ⓪	PJE WRT5060	Copies data of PAL mode to NTSC mode.

2. Operation Method for Rough Adjustment

1) Enter the Service menu, and select “Device Register Setting” ➔ “Projector Engine”.
2) Press “①” or “④” button on the commander to select the item, and press ▲, ▼, ◄, ► key on the joystick to change the data.



3) Select “GRN CENT” . When BLU or RED is displayed, press “③” button on the commander to change the adjustment color in the order of GRN ➔ BLU ➔ RED.
4) In the GRN, BLU, or RED mode, ▲, ▼ keys on the joystick can change the data in vertical direction, or ◄, ► keys in horizontal direction.

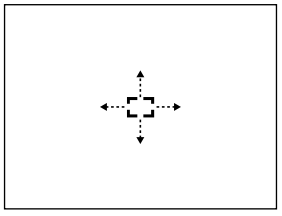


5) Before returning to the Service menu, press “🔇 (MUTE)” +“⓪” buttons on the commander to write the data. (Omission of this operation causes the set data to be returned to the data before adjustment)
6) Press “MENU” button on the commander to return to the Service menu.

3. Operation Method for Fine Adjustment (in GRN, BLU, or RED Mode)

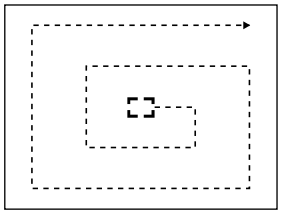
1) Select the Projector Engine mode.
2) Select FDIS so that the data at each position can be displayed in the fine adjustment mode, and set the data to "01".
3) Press "⑨" button on the commander, and the fine adjustment mode will be active where a green marker appears in the center of screen (in the case of GRN mode).
4) Press "◆ (OK)" button, and the marker color will be switched between green (GRN mode) and white alternately.
5) Use "①" or "④" button on the commander, or the joystick to move the marker to the position to be adjusted, where fine adjustment can be made.

• When marker color is white.
(in this case, fine adjustment is disabled)



Operating the joystick can move the marker up, down, or to the left or right freely.

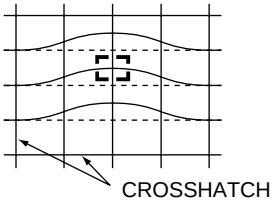
• When marker color is green. (GRN mode)



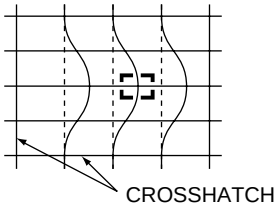
① : moves the marker clockwise from center to outside.
④ : moves the marker counterclockwise from outside to center.

• Fine adjustment can be made on the basis of marker position using ▲, ▼, ◄, ► keys on the joystick.

Movement when ▲ key on joystick is pressed.



Movement when ► key on joystick is pressed.



6) Press "⑨" button on the commander to return to the rough adjustment mode.

6-2-4. Projector Engine Adjustment (Sub Deflection Adjustment)

Adjustment ○ : Yes – : No

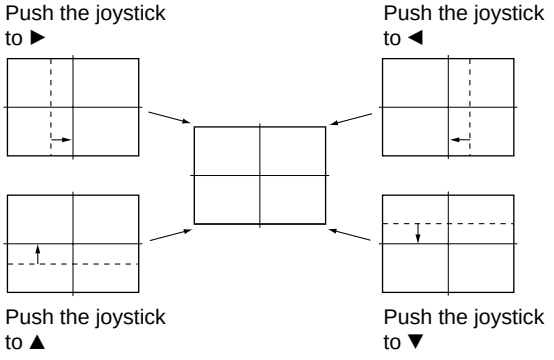
Adjustment Item	Adjustment Type		
	GRN	RED	BLU
	H / V	H / V	H / V
CENT	○ / ○	○ / ○	○ / ○
SKEW	○ / ○	○ / ○	○ / ○
SIZE	○ / ○	○ / ○	○ / ○
LIN	○ / ○	○ / ○	○ / ○
KEY	– / ○	– / ○	– / ○
PIN	○ / ○	○ / ○	○ / ○
MLIN	○ / –	○ / –	○ / –
MSIZ	○ / –	○ / –	○ / –

<Adjustment for DRC100 (PAL-Wide) Mode>

1. Green Adjustment

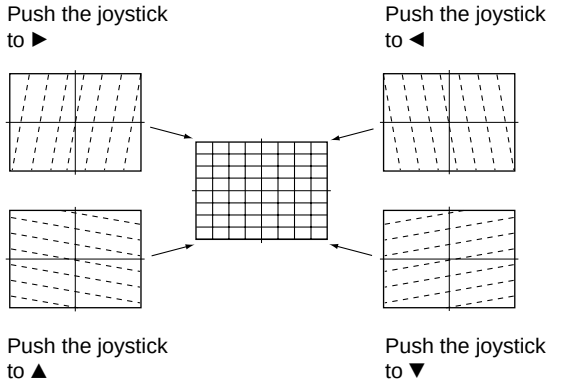
1) Place the caps on the red and blue lenses so that only the green color is displayed.
2) Enter the PAL SPCB signal to set the DRC100 (PAL) mode.
3) Set the screen format to "Wide".
4) Select the Projector Engine mode.
5) Press "⑥" button on the commander to display internal test signal (crosshatch).
6) Select "GRN CENT", and adjust so that the picture coincide in the center of screen.

• GRN CENT (horizontally/vertically)



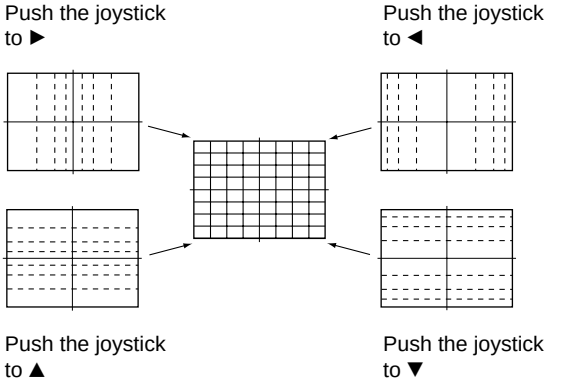
7) Select “GRN SKEW”, and correct the tilt of horizontal lines and vertical lines.

• GRN SKEW (horizontally/vertically)



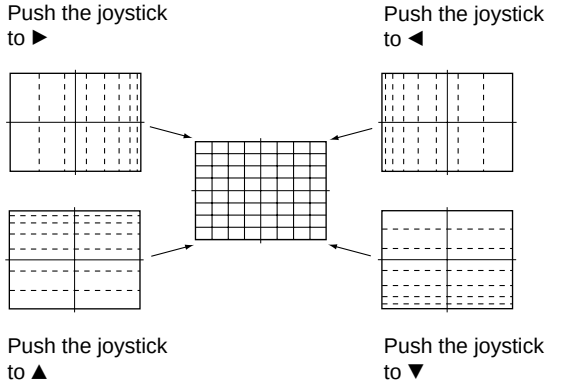
8) Select “GRN SIZE”, and adjust so that each distance from center to left end and to right end is equal. Adjust so that each distance from center to top and to bottom is equal.

• GRN SIZE (horizontally/vertically)



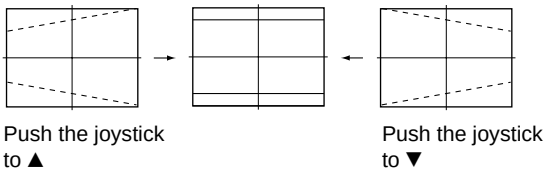
9) Select “GRN LIN”, and adjust so that each space at the right end and at the left end of screen is equal. Adjust so that each space at the top and at the bottom of screen is equal.

• GRN LIN (horizontally/vertically)



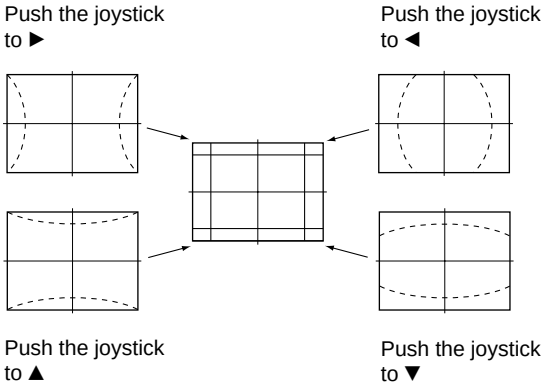
10) Select “GRN KEY”, and adjust so that upper and lower horizontal lines on the screen become parallel.

• GRN KEY (vertically)



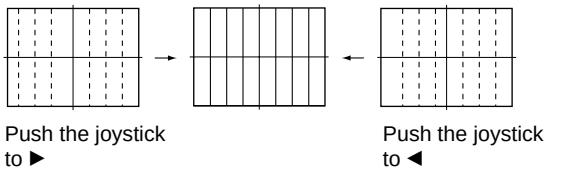
11) Select “GRN PIN”, and adjust so that right and left vertical lines on the screen become straight. Adjust so that upper and lower horizontal lines on the screen become straight.

• GRN PIN (horizontally/vertically)



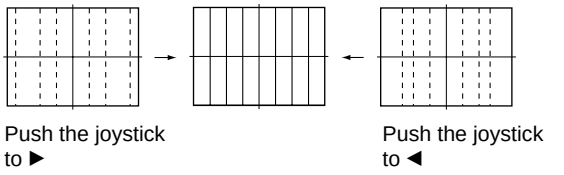
12) Select “GRN MLIN”, and correct the sizes of the horizontal line at the center of the screen are symmetrical left and right.

• GRN MLIN (horizontally)



13) Select “GRN MSIZ”, and correct the space intervals for the horizontal section of the screen are equal.

• GRN MSIZ (horizontally)



14) Press “⑨” button on the commander to enter the fine adjustment mode.
15) Make fine adjustment so that horizontal lines and vertical lines become straight.
16) Press “⑨” button on the commander to return to the rough adjustment mode.

2. Blue Adjustment

1) Place a cap on the red lens so that green and blue colors are displayed.
2) Press "③" button on the commander to select BLU mode.
3) Adjust the following items so that blue lines overlap with green lines.

• BLU CENT (horizontally/vertically)
• BLU SKEW (horizontally/vertically)
• BLU SIZE (horizontally/vertically)
• BLU LIN (horizontally/vertically)
• BLU KEY (vertically)
• BLU PIN (horizontally/vertically)
• BLU MLIN (horizontally)
• BLU MSIZ (horizontally)

4) Press "⑨" button on the commander to enter the fine adjustment mode.
5) Make fine adjustment so that horizontal lines and vertical lines overlap with green lines.
6) Press "⑨" button on the commander to return to the rough adjustment mode.

3. Red Adjustment

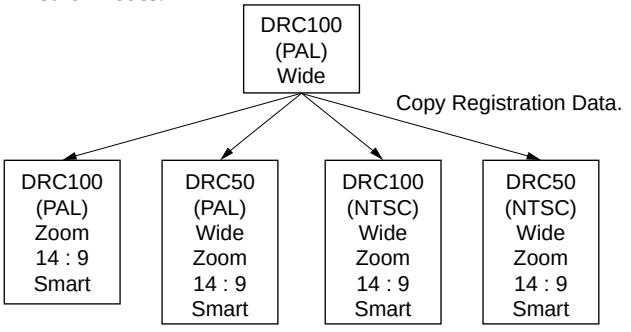
1) Place a cap on the blue lens so that green and red colors are displayed.
2) Press "③" button on the commander to select RED mode.
3) Hereinafter, use same manner as that of blue adjustment to adjust so that the red lines overlap with green lines.

4. Registration Data Writing

1) After each adjustment of green, blue, and red for the DRC100 (PAL-Wide) mode finished, press "🔇 (MUTE)"+ "⓪" buttons on the commander to write registration data to the NVM.

<Copy of All Registration Data>

1. Make sure that the adjustment for DRC100 (PAL-Wide) mode finished and the data have already been written.
2. Select the Projector Engine mode.
3. Select ALCP and set the data to "01", and press "🔇 (MUTE)"+"⓪" buttons on the commander.
4. The data of DRC100 (PAL-Wide) mode are copied to all other modes.



<Adjustment for DRC100 (PAL-Smart) Mode>

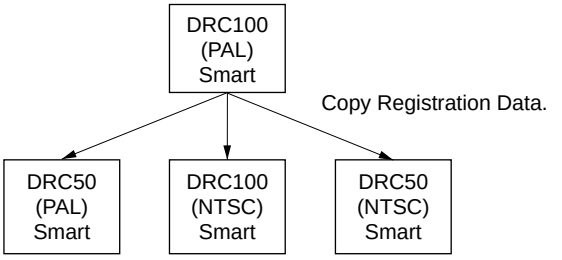
SPEC Overscan Spec. = 7.5%

Input Signal	H SIZE	V SIZE
PAL SPCB	17.0 ± 0.1 sq.	11.2 ± 0.1 sq.

1. Place the caps on the red and blue lenses so that only the green color is displayed.
2. Enter the PAL SPCB signal to set the DRC100 (PAL) mode.
3. Set the screen format to "Smart".
4. Select the Projector Engine mode.
5. Press "⑥" button on the commander to display internal test signal (crosshatch).
6. Hereinafter, use same manner as that of adjustment for DRC100 (PAL-Wide) mode to perform the green adjustments.
9. Press "⑨" button on the commander to enter the fine adjustment mode.
10. Make a fine adjustment so that horizontal lines and vertical lines become straight.
11. Press "⑨" button on the commander to return to the rough adjustment mode.
12. Hereinafter, use same manner as that of adjustment for DRC100 (PAL-Wide) mode to perform the blue and red adjustments.
13. After each adjustment of green, blue, and red for the DRC100 (PAL-Smart) mode finished, press "🔇(MUTE)"+"⓪" buttons on the commander to write registration data to the NVM.

<Copy of Smart Mode Registration Data>

1. Make sure that the adjustment for DRC100 (PAL-Smart) mode finished and the data have already been written.
2. Set the screen format to “Smart”.
3. Select the Projector Engine mode.
4. Select COPY and set the data to “01”, and press “ (MUTE)”+“⓪” buttons on the commander.
5. The data of DRC100 (PAL-Smart) mode are copied to all other Smart modes.



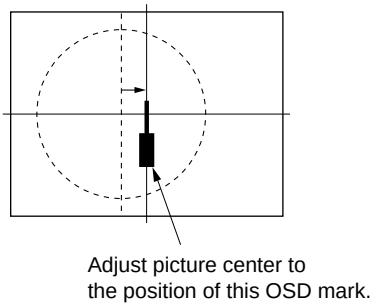
6-3. AUTO CONVERGENCE OFFSET

This adjustment must be performed after the registration adjustment was made or after readjustment was made by any reason.

1. Darken the periphery of this set.
2. Enter the PAL SPCB signal to set the DRC100 (PAL) mode.
3. Set the screen format to “Wide”.
4. Select the Projector Engine mode.
5. Press “ (AUTO CONVERGENCE)” button on the front panel of the set.
   (The offset value is now automatically stored)
6. Select “62 ERR” of Projector Engine mode.
   Confirm ERR is “00”. If ERR is not “00”, recheck. (Refer to 6-8.)
7. Exit the TT mode.
8. Enter the NTSC monoscope signal, and perform the same steps in the DRC50 (NTSC-Wide) mode respectively.

6-4. PICTURE CENTER ADJUSTMENT

1. Enter the SPCB signal.
2. Select the TT mode, and press “③”+“②” buttons on the commander.
   TT32 : Horizontal center adjustment for MID-X input
3. Pressing ◄ or ► key on the joystick, move the picture in horizontal direction to center the picture on the OSD mark.
4. Press “ (TV MODE)” or “ (OK)” button on the commander to return to normal TV mode.



6-5. WHITE BALANCE ADJUSTMENT

1. Enter the monoscope signal.
2. Press “MENU” button on the commander to enter the Picture Adjustment menu.
3. Set the Picture Mode to “Personal”, and the Digital Mode to “DRC100”, and the screen format to “Wide”.
4. Enter the Service menu, and select “Device Register Setting” ➧ “Backend”.
5. Adjust “13 Sub Bright” so that 10 IRE section barely grows.
6. Enter all-white pattern signal.
7. Fix “17 G-Cutoff” to “31”, and adjust “15 R-Cutoff” and “19 B-Cutoff” so as to attain the optimum white balance.
   Condition: All-White Pattern 20 IRE
8. Adjust “13 Sub Bright” so that 100 IRE section barely grows.
9. Adjust “10 R-Drive” and “12 B-Drive” so as to attain the optimum white balance.
10. Repeatedly adjust the white balance for the minimum and maximum picture setting.

6-6. SUB BRIGHT ADJUSTMENT

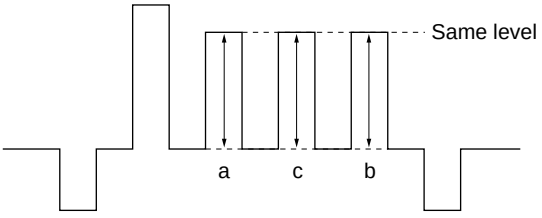
1. Enter the monoscope signal.
2. Press “MENU” button on the commander to enter the Picture Adjustment menu.
3. Set respective items as follows:
   • Picture Mode ➔ Personal
   • AI (Artificial Intelligence) ➔ OFF
   • Contrast ➔ Minimum
   • Brightness ➔ 50%
4. Enter the Service menu, and select “Device Register Setting” ➔ “Backend”.
5. Adjust “13 Sub Bright” so that the border between 0 IRE and 10 IRE becomes distinct.

6-7. SUB COLOR ADJUSTMENT

1. Enter the color bar signal.
2. Connect the oscilloscope probe to the CN4500 pin 5 on the E board.
3. Enter the Service menu, and set respective items as follows. However, record current set values so that they can be restored later.

1) Select “Device Register Setting” ➔ “Backend”.
   • 1 D-Col ➔ OFF
   • 2 Contrast ➔ 31
   • 5 Color ➔ 31
   • 18 DPIC-Level ➔ 0
   • 20 DC-Tran. ➔ 0
2) Select “Initializing” ➔ “Feature Setting”.
   • 6 PictBoostBypass ➔ ON

4. Select “Device Register Setting” ➔ “Backend”.
5. Measure waveform, and adjust “29 Sub Color” so that the height of “a”, “b” and “c” is same as shown in figure.
6. Return the data set in step 3 to original values.



6-8. AUTO CONVERGENCE ERROR CODE LIST

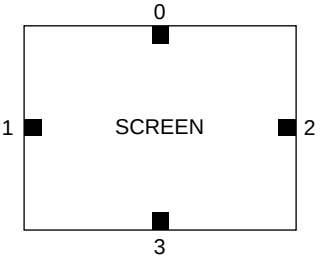
If an error code is displayed after the set has been fully adjusted, correctly, plese check the following items : position, tilt and sizing. If either of these adjustments are off, even slightli, the auto registration pattern will not hit the four sensors properly. This occurs when the internal generator patterns is being flashed on the screen for the sensor to read. Therefore, auto registration (called auto convergence) cannot operate properly causing an error code to be displayed. In order for this function to operate properly, correct position, tilt and size must be adjusted properly.

ERROR CODE LIST

ERROR CODE	DESCRIPTION	REMEDY
00	No Error	
10	Sensor 0 low output	Check sensor 0, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust “64 VUP” if necessary.
11	Sensor 1 low output	Check sensor 1, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust “69 HLE” if necessary.
12	Sensor 2 low output	Check sensor 2, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust “73 HRIV” if necessary.
13	Sensor 3 low output	Check sensor 3, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust “68 VLOW” if necessary.
20	Sensor 0 high output	Check sensor 0 and circuit.
21	Sensor 1 high output	Check sensor 1 and circuit.
22	Sensor 2 high output	Check sensor 2 and circuit.
23	Sensor 3 high output	Check sensor 3 and circuit.
30	V CENT or SKEW adjustment loop overflow	Check “66 VMID” data and check registration condition.
31	H CENT or SKEW adjustment loop overflow	Check “71 HMID” data and check registration condition.
32	H LIN or SIZE adjustment loop overflow	Check “71 HMID” data and check registration condition.
40	V CENT regi data overflow	Check “66 VMID” data and confirm V CENT data (all mode) is not near 511.
41	H CENT regi data overflow	Check “71 HMID” data and confirm H CENT data (all mode) is not near 511.
42	V SKEW regi data overflow	Check “66 VMID” data and confirm V SKEW data (all mode) is not near 511.
43	H SKEW regi data overflow	Check “71 HMID” data and confirm H SKEW data (all mode) is not near 511.
44	H LIN regi data overflow	Check “71 HMID” data and confirm H CENT data (all mode) is not near 511.
45	H SIZE regi data overflow	Check “71 HMID” data and confirm H CENT data (all mode) is not near 511.
50	V CENT regi data overdrow	Check “66 VMID” data and confirm V CENT data (all mode) is not near –512.
51	H CENT regi data overdrow	Check “71 HMID” data and confirm H CENT data (all mode) is not near –512.
52	V SKEW regi data overdrow	Check “66 VMID” data and confirm V SKEW data (all mode) is not near –512.
53	H SKEW regi data overdrow	Check “71 HMID” data and confirm H SKEW data (all mode) is not near –512.
54	H LIN regi data overdrow	Check “71 HMID” data and confirm H CENT data (all mode) is not near –512.
55	H SIZE regi data overdrow	Check “71 HMID” data and confirm H CENT data (all mode) is not near –512.
60	H or V CENT offset overflow	Check “71 HMID” data and check “66 VMID” data.
61	H or V SKEW offset overflow	Check SKEW adjustment.
62	H SiZE or LIN offset overflow	Check “71 HMID” data, check “66 VMID” data and check SIZE and LIN adjustment.
70	H or V CENT offset overdrow	Check “71 HMID” data and check “66 VMID” data.
71	H or V SKEW offset overdrow	Check SKEW adjustment.
72	H SIZE or LIN offset overdrow	Check “71 HMID” data, check “66 VMID” data and check SIZE and LIN adjustment.

[SENSOR POSITION]

0 : UPPER SENSOR
1 : LEFT SENSOR
2 : RIGHT SENSOR
3 : LOWER SENSOR



6-9. TEST-TEST MODE

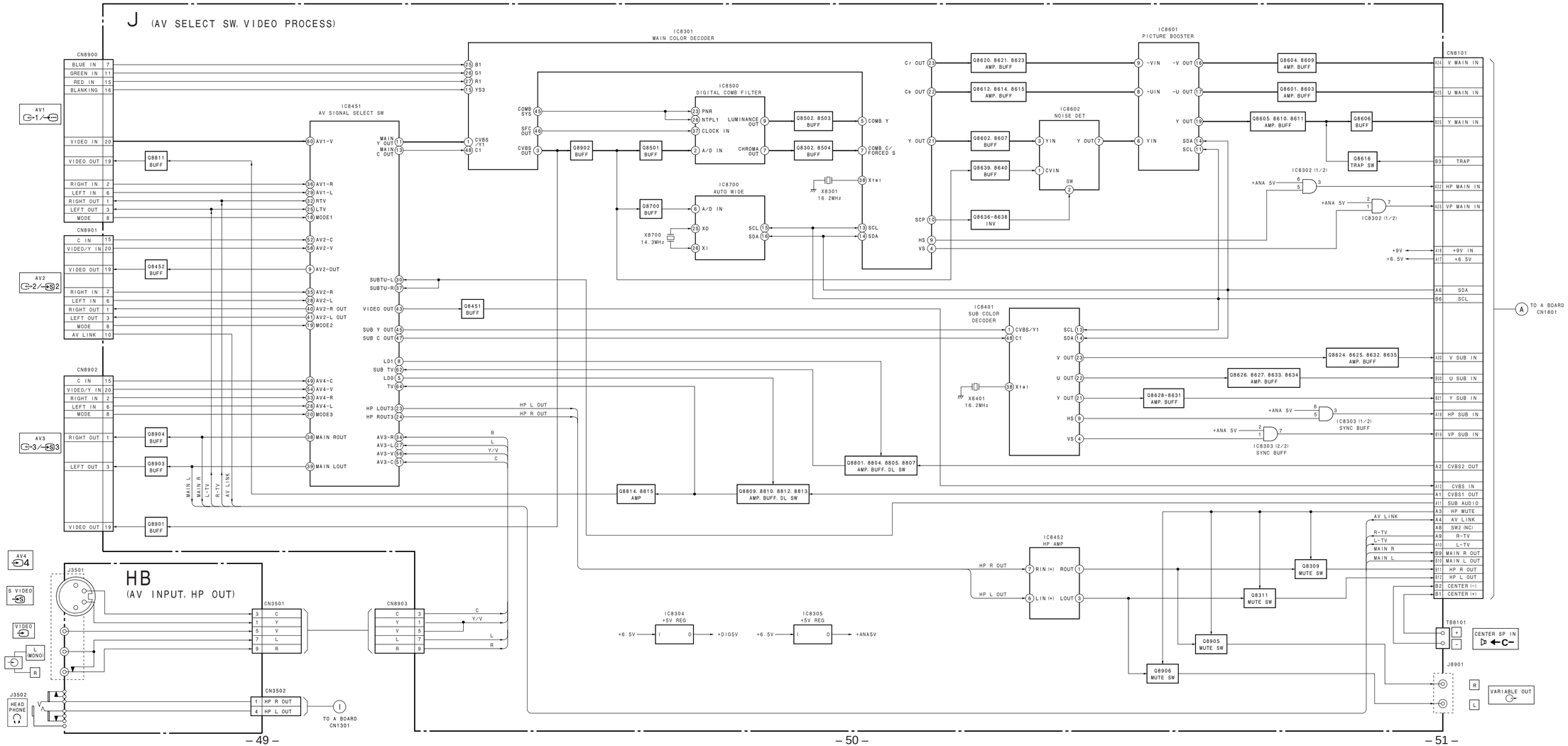
Is available by pressing “OSD”, “5”, “Volume minus”, “TV” button in the standby mode, OSD “TT--” appears. The functions described below are available by pressing the two numbers. To release the Test-Test mode, Press “⓪” twice or switch the TV set into standby mode. Pressing the two PROGR (+ and –) buttons during Power ON will also switch into “TT” mode.
In “TT” mode, it is possible to remove the Menu from the screen by pressing the Speaker OFF button once. Pressing the Speaker OFF button a second time will cause the menu to reappear. The Function is kept even when the menu is not displayed !!.

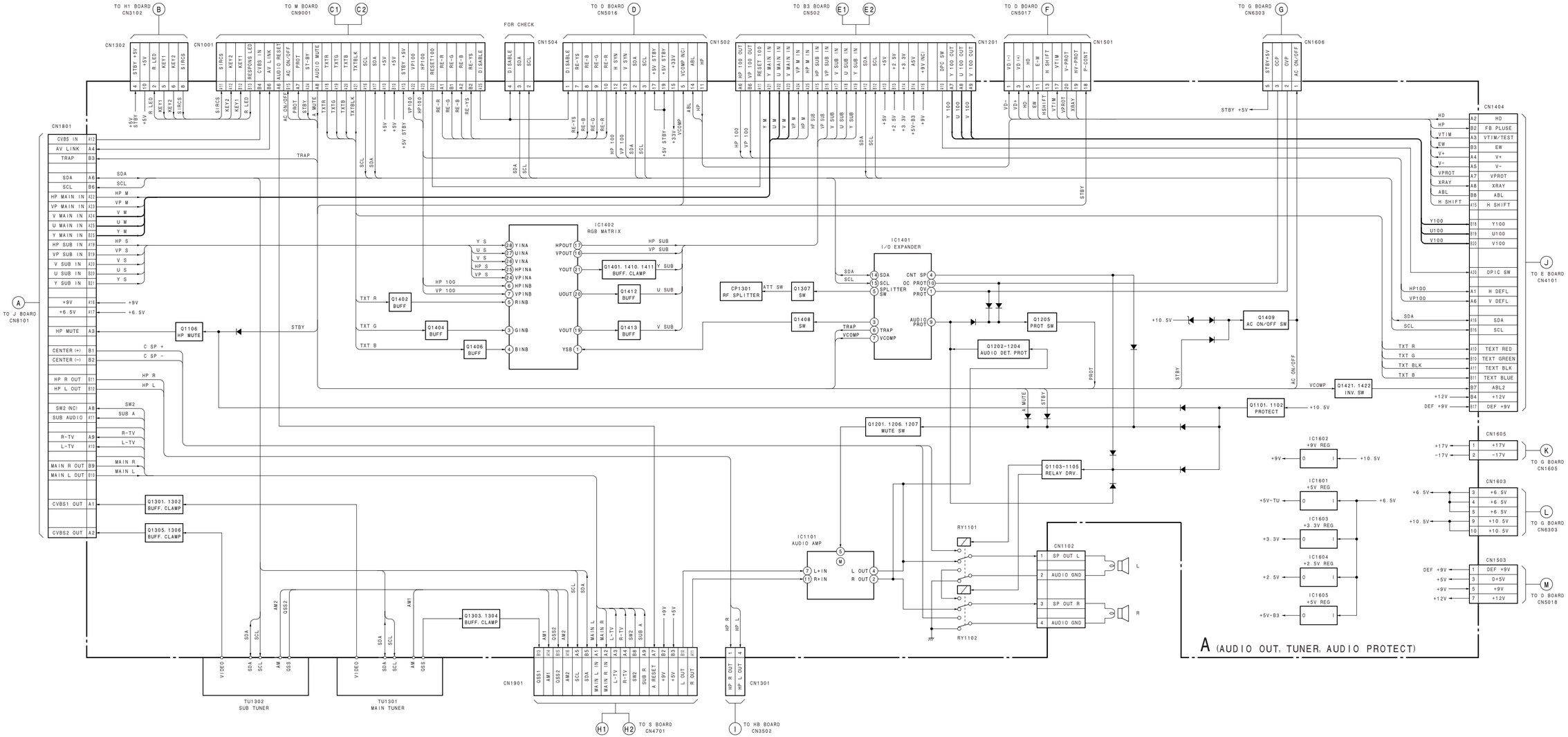
00	Switch back to normal mode - “TT” mode off
01	Set picture maximum
02	Set picture minimum
03	Set speaker/headphone Volume to 30%
04	Set speaker/headphone Volume to 50%
05	Set speaker/headphone Volume to 65%
06	Set speaker/headphone Volume to 80%
07	Ageing Mode
08	Shipping Condition
09	Enter PJ Engine service mode
10	No function
11	Sub picture adjustment
12	Sub colour adjustment
13	Displayed software version and TV set configuration
14	Production Info Display
15	Picture Rotation
16	Picture level 50%
17	Audio mute on
18	No function
19	Sub brightness adjustment
20	No function
21	Destination A includes text settings, display TV status
22	Destination L includes text settings, display TV status
23	Destination E includes text settings, display TV status
24	Destination U includes text settings, display TV status
25	Destination D includes text settings, display TV status
26	Destination B includes text settings, display TV status
27	Destination K includes text settings, display TV status
28	Destination R includes text settings, display TV status
30	No function
31	Geometry adjustment 1
32	Geometry adjustment 2
33	Error monitor
34	No function
35	CRT 4:3 <–> 16:9 ; Display TV status
36	Line 23 detection switch
37	Velocity Modulation (VM) test
38	No function
39	No function
40	No function

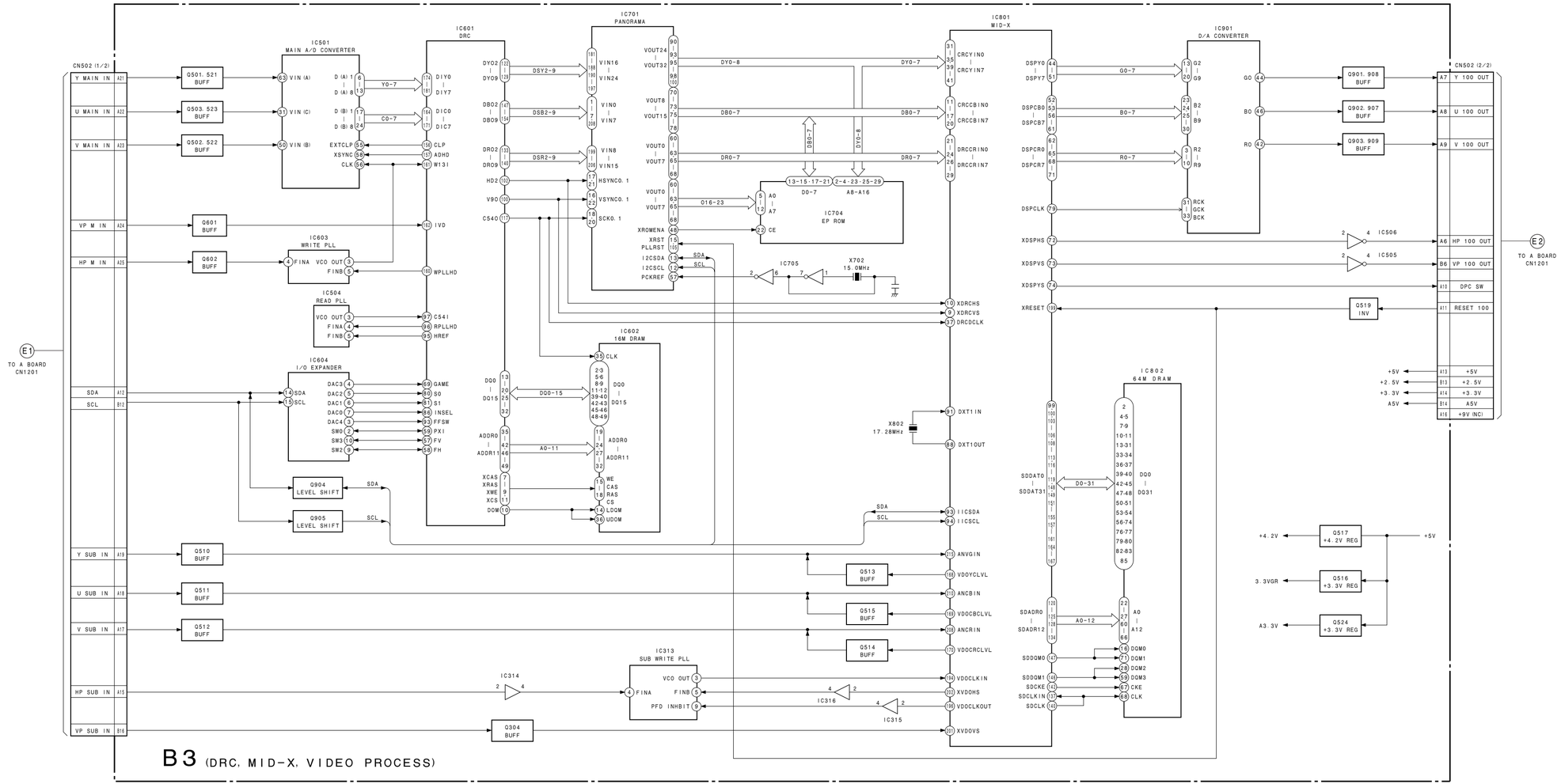
41	Screen mode check
42	Reinitialize geometry
43	No function
44	Screen mode DRC100
45	Screen mode DRC50
46	Reserved for dealer commander
47	Reinitialize NVM with program 99
48	Set NVM as non virgin
49	Set NVM as virgin
50	No function
51	Set Dolby volume to 90%
52	Dolby on left speaker only
53	Dolby on right speaker only
54	Dolby on left centre only
55	Dolby surround speaker only
56 ı 59	No function
60	No function
61	Service mode
62	Production mode
65	Reset error codes
68	Ignore errors on
69	Ignore errors off
70	No function
71	No function
72	No function
73	Clear programs
74 ı 79	No function
80	No function
82	PAP H adjustment left image
83 ı 86	No function
87	Personal ID reset with program 99
88	Parental Lock off
89	No function
90	No function

SECTION 7
DIAGRAMS

7-1. BLOCK DIAGRAMS

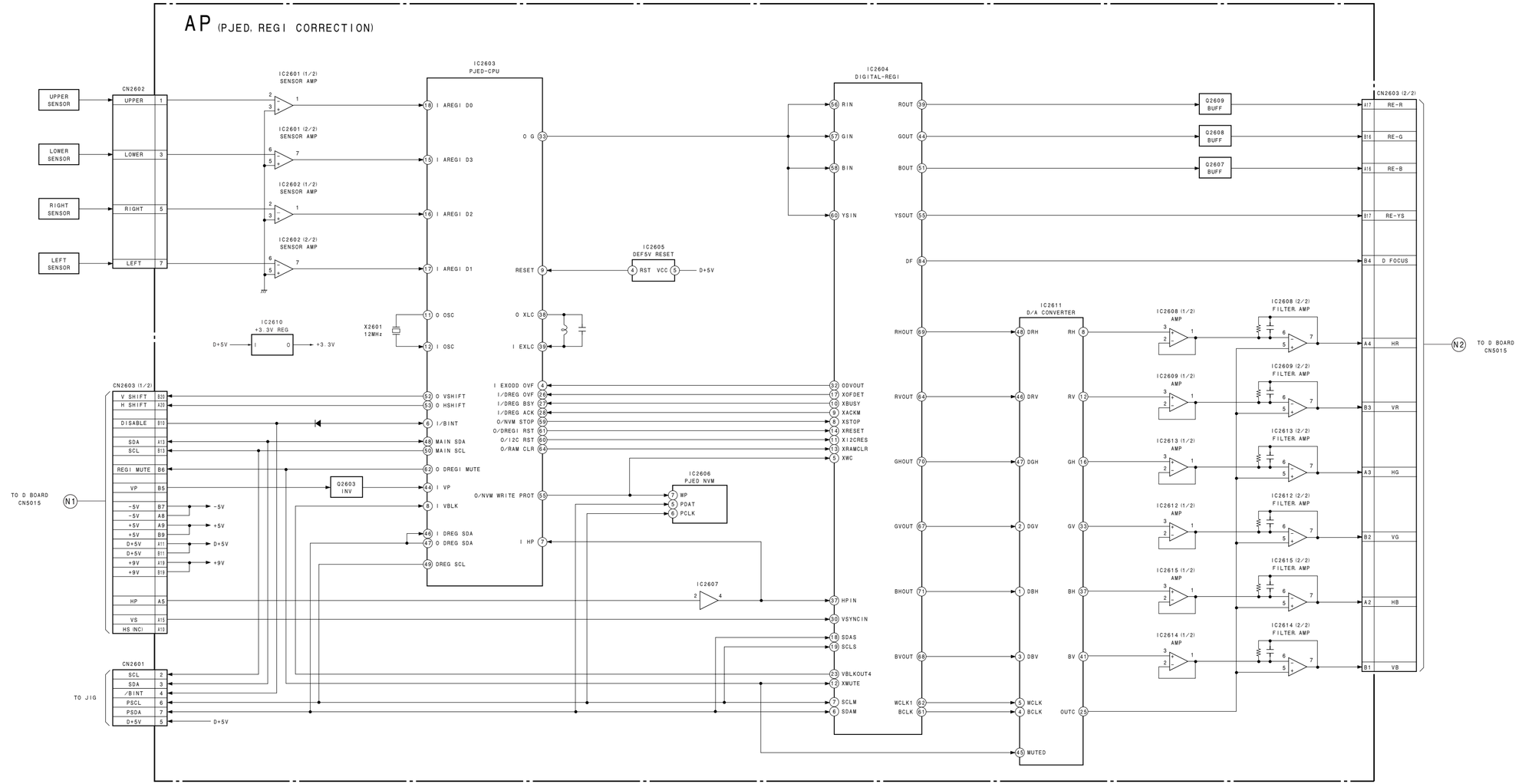


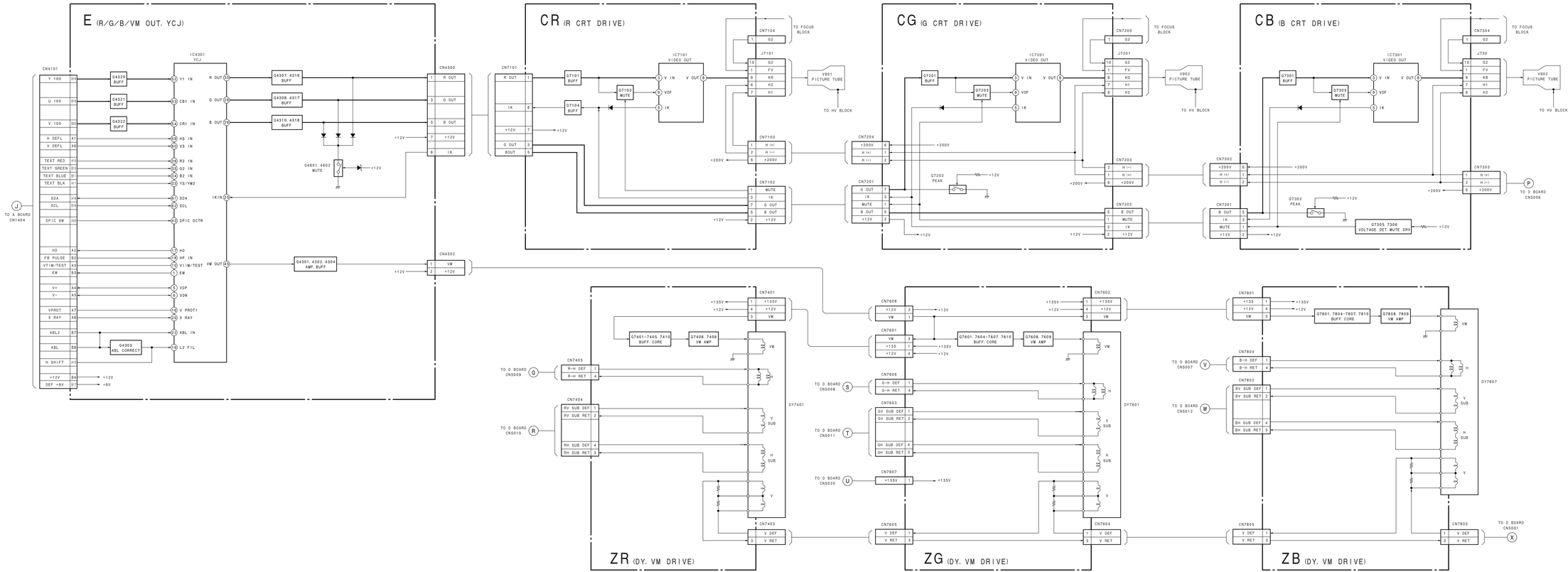

TO H1 BOARD CN3102
TO M BOARD CN9001
TO D BOARD CN5016
TO B3 BOARD CN502
TO D BOARD CN5017
TO G BOARD CN6303
FOR CHECK
CN1302
CN1001
CN1504
CN1502
CN1201
CN1501
CN1606
CN1801
CN1404
IC1402 RGB MATRIX
IC1401 I/O EXPANDER
IC1101 AUDIO AMP
CP1301 RF SPLITTER
Q1307 SW
Q1408 SW
Q1106 HP MUTE
Q1205 PROT SW
Q1409 AC ON/OFF SW
Q1202-1204 AUDIO DET. PROT
Q1201. 1206. 1207 MUTE SW
Q1103-1105 RELAY DRV.
Q1101. 1102 PROTECT
Q1421. 1422 INV. SW
Q1301. 1302 BUFF. CLAMP
Q1305. 1306 BUFF. CLAMP
Q1303. 1304 BUFF. CLAMP
Q1401. 1410. 1411 BUFF. CLAMP
Q1402 BUFF
Q1404 BUFF
Q1406 BUFF
Q1412 BUFF
Q1413 BUFF
RY1101
RY1102
CN1102
CN1901
CN1301
CN1605
CN1603
CN1503
IC1602 +9V REG
IC1601 +5V REG
IC1603 +3.3V REG
IC1604 +2.5V REG
IC1605 +5V REG
TU1302 SUB TUNER
TU1301 MAIN TUNER
TO J BOARD CN8101
TO E BOARD CN4101
TO G BOARD CN1605
TO G BOARD CN6303
TO D BOARD CN5018
TO S BOARD CN4701
TO HB BOARD CN3502
A (AUDIO OUT, TUNER, AUDIO PROTECT)

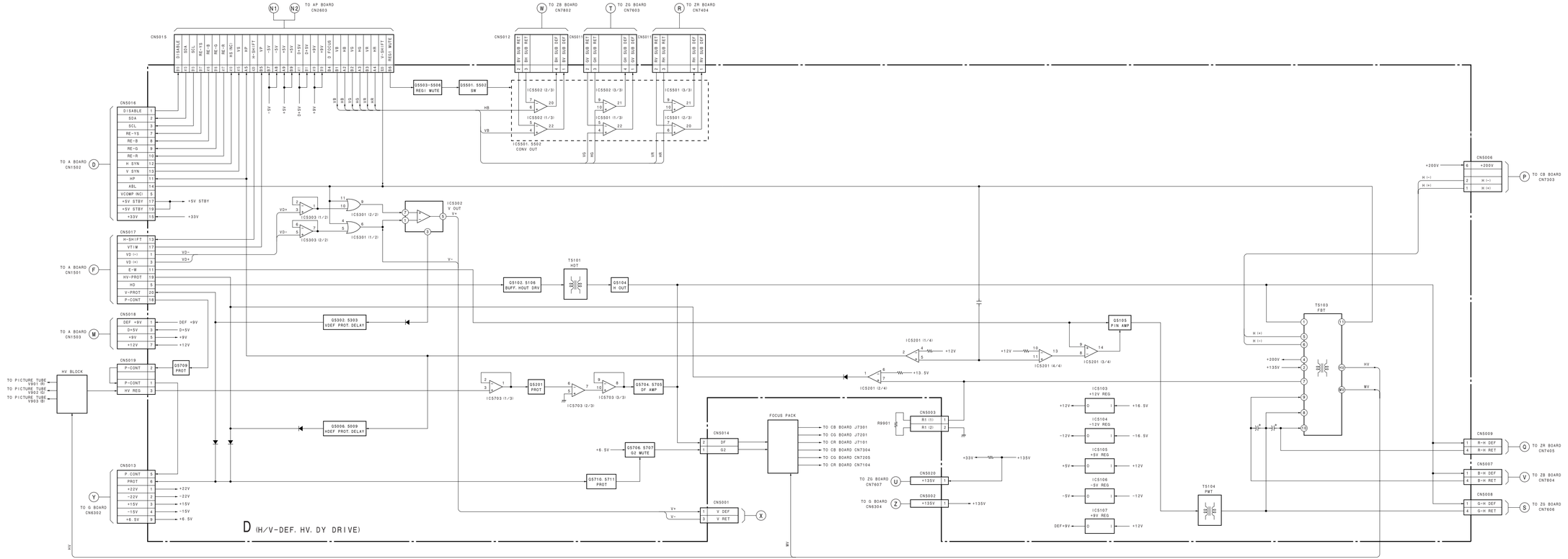


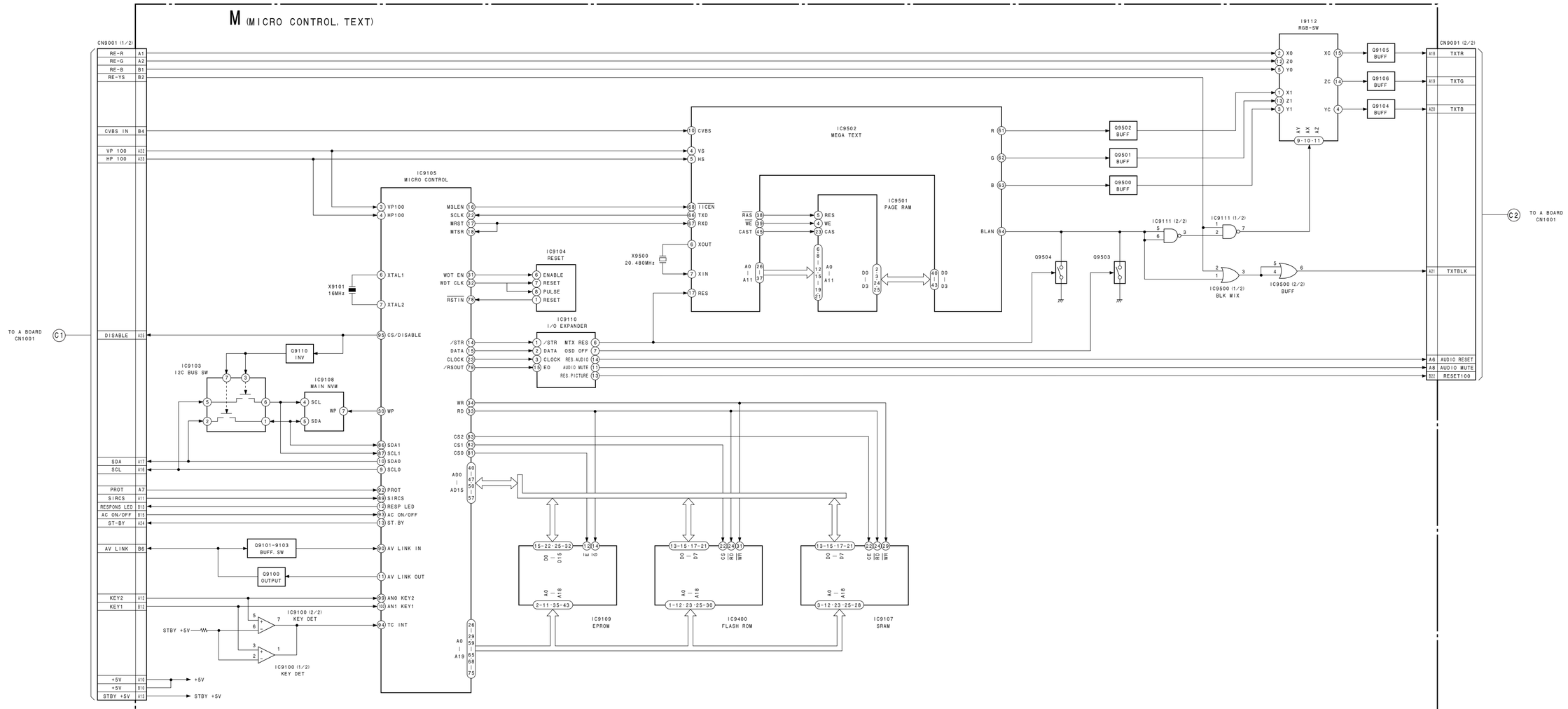
B3 (DRC, MID-X, VIDEO PROCESS)

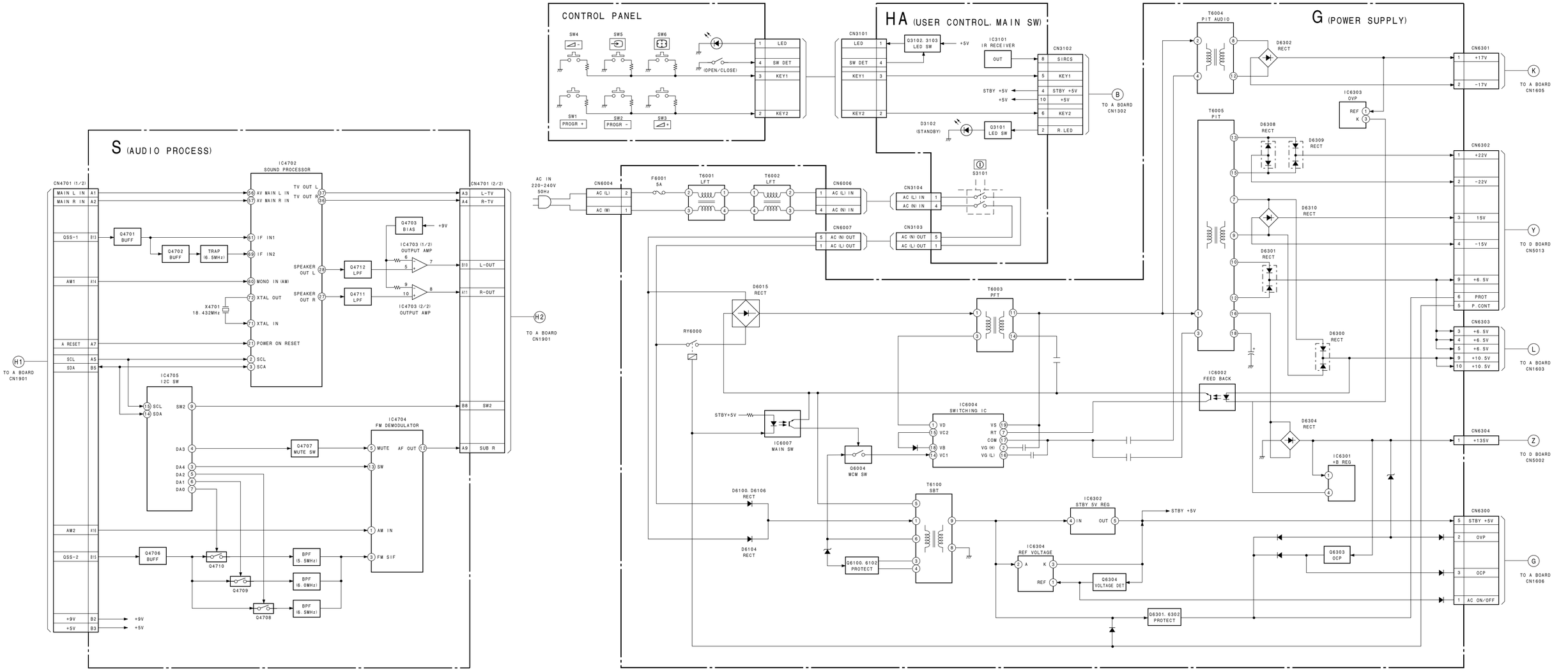
AP (PJED, REGI CORRECTION)




E (R/G/B/VM OUT, YCJ)
CR (R CRT DRIVE)
CG (G CRT DRIVE)
CB (B CRT DRIVE)
ZR (DY, VM DRIVE)
ZG (DY, VM DRIVE)
ZB (DY, VM DRIVE)
CN4101
IC4301 YCJ
CN4500
CN4502
CN7101
CN7104
CN7103
CN7102
CN7201
CN7204
CN7202
CN7203
CN7304
CN7303
CN7302
CN7301
CN7401
CN7405
CN7404
CN7403
CN7608
CN7601
CN7606
CN7603
CN7607
CN7605
CN7602
CN7801
CN7804
CN7802
CN7805
CN7803
IC7101 VIDEO OUT
IC7201 VIDEO OUT
IC7301 VIDEO OUT
J7101
J7201
J730
V901 PICTURE TUBE
V902 PICTURE TUBE
TO FOCUS BLOCK
TO HV BLOCK
Y 100
U 100
V 100
H DEFL
V DEFL
TEXT RED
TEXT GREEN
TEXT BLUE
TEXT BLK
SDA
SCL
DPIC SW
HD
FB PULSE
VTIM/TEST
EW
V+
V-
VPROT
X RAY
ABL2
ABL
H SHIFT
+12V
DEF +9V
Q4320 BUFF
Q4321 BUFF
Q4322 BUFF
Q4303 ABL CORRECT
Q4307, 4316 BUFF
Q4308, 4317 BUFF
Q4310, 4318 BUFF
Q4601, 4602 MUTE
Q4301, 4303, 4304 AMP, BUFF
Y1 IN
CB1 IN
CR1 IN
HS IN
VS IN
R2 IN
G2 IN
B2 IN
YS/YM2
SDA
SCL
DPIC DCTR
HD
HP IN
V!!M/TEST
EW
VDP
VDN
V PROT1
X RAY
ABL IN
L2 FIL
R OUT
G OUT
B OUT
IKIN
VM OUT
R OUT
G OUT
B OUT
IK
+12V
G OUT
BOUT
Q7101 BUFF
Q7104 BUFF
Q7103 MUTE
V IN
V OUT
VOF
IK
+200V
MUTE
Q7201 BUFF
Q7203 MUTE
Q7202 PEAK
H (+)
H (-)
Q7301 BUFF
Q7303 MUTE
Q7302 PEAK
Q7305, 7306 VOLTAGE DET, MUTE DRV
+135V
VM
Q7401-7405, 7415 BUFF, CORE
Q7408, 7409 VM AMP
Q7601, 7604-7607, 7610 BUFF, CORE
Q7608, 7609 VM AMP
Q7801, 7804-7607, 7810 BUFF, CORE
Q7808, 7809 VM AMP
R-H DEF
R-H RET
RV SUB DEF
RV SUB RET
RH SUB DEF
RH SUB RET
G-H DEF
G-H RET
GV SUB DEF
GV SUB RET
GH SUB DEF
GH SUB RET
V DEF
V RET
B-H DEF
B-H RET
BV SUB DEF
BV SUB RET
BH SUB DEF
BH SUB RET
DY7401
DY7601
DY7801
V SUB
H SUB
TO A BOARD CN1404
TO D BOARD CN5009
TO D BOARD CN5010
TO D BOARD CN5008
TO D BOARD CN5011
TO D BOARD CN5020
TO D BOARD CN5007
TO D BOARD CN5012
TO D BOARD CN5001
TO D BOARD CN5006

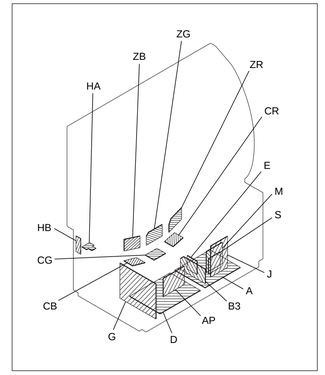

TO AP BOARD CN2603
TO ZB BOARD CN7802
TO ZG BOARD CN7603
TO ZR BOARD CN7404
CN5015
CN5012
CN5011
CN5010
DISABLE
SDA
SCL
RE-YS
RE-B
RE-G
RE-R
H SYN
V SYN
HP
ABL
VCOMP INC
+5V STBY
+33V
H-SHIFT
VTIM
VD (-)
VD (+)
E-W
HV-PROT
HD
V-PROT
P-CONT
DEF +9V
D+5V
+9V
+12V
P-CONT
HV REG
P CONT
PROT
+22V
-22V
+15V
-15V
+6.5V
BV SUB DEF
BH SUB DEF
GH SUB DEF
RV SUB DEF
BV SUB RET
BH SUB RET
GH SUB RET
RV SUB RET
Q5503-5506 REG MUTE
Q5501, 5502 SW
IC5501, 5502 CONV OUT
IC5502 (2/3)
IC5502 (3/3)
IC5501 (3/3)
IC5502 (1/3)
IC5501 (1/3)
IC5501 (2/3)
IC5301 (2/2)
IC5301 (1/2)
IC5303 (1/2)
IC5303 (2/2)
IC5302 V OUT
Q5102, 5106 BUFF. HOUT DRV
T5101 HOT
Q5104 H OUT
Q5302, 5303 VDEF PROT. DELAY
Q5006, 5009 HDEF PROT. DELAY
Q5709 PROT
Q5201 PROT
Q5704, 5705 DF AMP
Q5706, 5707 G2 MUTE
Q5710, 5711 PROT
IC5703 (1/3)
IC5703 (2/3)
IC5703 (3/3)
IC5201 (1/4)
IC5201 (2/4)
IC5201 (3/4)
IC5201 (4/4)
Q5105 P/N AMP
+12V
+13.5V
+33V
+135V
CN5003
CN5004
CN5002
CN5001
R9901
R1 (1)
R1 (2)
TO ZG BOARD CN7607
TO G BOARD CN6304
FOCUS PACK
CN5014
DF
G2
TO CB BOARD J7301
TO CG BOARD J7201
TO CR BOARD J7101
TO CB BOARD CN7304
TO CG BOARD CN7205
TO CR BOARD CN7104
IC5103 +12V REG
IC5104 -12V REG
IC5105 +5V REG
IC5106 -5V REG
IC5107 +9V REG
+16.5V
-16.5V
+12V
-12V
+5V
-5V
DEF+9V
T5104 PWT
T5103 FBT
+200V
+135V
H (+)
H (-)
HV
WV
CN5006
CN5009
CN5007
CN5008
R-H DEF
R-H RET
B-H DEF
B-H RET
G-H DEF
G-H RET
TO CB BOARD CN7303
TO ZR BOARD CN7405
TO ZB BOARD CN7804
TO ZG BOARD CN7606
TO A BOARD CN1502
TO A BOARD CN1501
TO A BOARD CN1503
TO G BOARD CN6302
HV BLOCK
TO PICTURE TUBE VR01 (R)
TO PICTURE TUBE VR02 (G)
TO PICTURE TUBE VR03 (B)
D (H/V-DEF, HV, DY DRIVE)


M (MICRO CONTROL, TEXT)
CN9001 (1/2)
RE-R A1
RE-G A2
RE-B B1
RE-YS B2
CVBS IN B4
VP 100 A22
HP 100 A23
DISABLE A25
SDA A17
SCL A16
PROT A7
SIRCS A11
RESPONS LED B13
AC ON/OFF B15
ST-BY A24
AV LINK B6
KEY2 A12
KEY1 B12
+5V A10
+5V B10
STBY +5V A13
TO A BOARD CN1001 C1
IC9105 MICRO CONTROL
VP100
HP100
XTAL1
XTAL2
CS/DISABLE
WP
SDA1
SCL1
SDA0
SCL0
PROT
SIRCS
RESP LED
AC ON/OFF
ST BY
AV LINK IN
AV LINK OUT
AN0 KEY2
AN1 KEY1
TC INT
M3LEN
SCLK
MRST
MTSR
WDT EN
WDT CLK
RSTIN
/STR
DATA
CLOCK
/RSOUT
WR
RD
CS2
CS1
CS0
AD0 | AD15
A0 | A19
X9101 16MHz
Q9110 INV
IC9103 I2C BUS SW
IC9108 MAIN NVM
SCL
SDA
WP
Q9101-9103 BUFF. SW
Q9100 OUTPUT
IC9100 (2/2) KEY DET
IC9100 (1/2) KEY DET
STBY +5V
+5V
STBY +5V
IC9104 RESET
ENABLE
RESET
PULSE
RESET
X9500 20.480MHz
XOUT
XIN
RES
IC9110 I/O EXPANDER
/STR MTX RES
DATA OSD OFF
CLOCK RES.AUDIO
EO AUDIO MUTE
RES.PICTURE
IC9502 MEGA TEXT
CVBS
VS
HS
IICEN
TXD
RXD
R
G
B
BLAN
IC9501 PAGE RAM
RAS
WE
CAST
RES
WE
CAS
A0 | A11
D0 | D3
Q9502 BUFF
Q9501 BUFF
Q9500 BUFF
Q9504
Q9503
I9112 RGB-SW
XC
ZC
YC
AV AX AZ
9-10-11
Q9105 BUFF
Q9106 BUFF
Q9104 BUFF
IC9111 (2/2)
IC9111 (1/2)
IC9500 (1/2) BLK MIX
IC9500 (2/2) BUFF
CN9001 (2/2)
A18 TXTR
A19 TXTG
A20 TXTB
A21 TXTBLK
A6 AUDIO RESET
A8 AUDIO MUTE
B23 RESET100
TO A BOARD CN1001 C2
IC9109 EPROM
IC9400 FLASH ROM
IC9107 SRAM


S (AUDIO PROCESS)
IC4702
SOUND PROCESSOR
CN4701 (1/2)
MAIN L IN A1
MAIN R IN A2
QSS-1 B13
AM1 A14
A RESET A7
SCL A5
SDA B5
+9V B2
+5V B3
AV MAIN L IN 58
AV MAIN R IN 57
TV OUT L 37
TV OUT R 36
IF IN1 61
IF IN2 59
MONO IN (AM) 60
XTAL OUT 72
XTAL IN 71
POWER ON RESET 21
SCL 2
SCA 3
SPEAKER OUT L 28
SPEAKER OUT R 27
Q4701 BUFF
Q4702 BUFF
TRAP (6.5MHz)
X4701 18.432MHz
Q4712 LPF
Q4711 LPF
Q4703 BIAS
+9V
IC4703 (1/2) OUTPUT AMP
IC4703 (2/2) OUTPUT AMP
CN4701 (2/2)
A3 L-TV
A4 R-TV
B10 L-OUT
A11 R-OUT
B8 SW2
A9 SUB R
H1
TO A BOARD CN1901
H2
TO A BOARD CN1901
IC4705 I2C SW
SCL 15
SDA 14
SW2 9
DA3 4
DA4 3
DA2 2
DA1 1
DA0 7
IC4704 FM DEMODULATOR
MUTE 5
SW 13
AM IN 1
FM SIF 3
AF OUT 12
Q4707 MUTE SW
Q4706 BUFF
Q4710
Q4709
Q4708
BPF (5.5MHz)
BPF (6.0MHz)
BPF (6.5MHz)
+9V
+5V
CONTROL PANEL
SW4
SW5
SW6
(OPEN/CLOSE)
SW1 PROGR +
SW2 PROGR -
SW3
LED 1
SW DET 4
KEY1 3
KEY2 2
CN3101
LED 1
SW DET 4
KEY1 3
KEY2 2
Q3102, 3103 LED SW
+5V
IC3101 IR RECEIVER
OUT
CN3102
8 SIRCS
5 KEY1
4 STBY +5V
10 +5V
6 KEY2
2 R.LED
B
TO A BOARD CN1302
D3102 (STANDBY)
Q3101 LED SW
HA (USER CONTROL, MAIN SW)
AC IN 220-240V 50Hz
CN6004
AC (L) 2
AC (N) 1
F6001 5A
T6001 LFT
T6002 LFT
CN6006
1 AC (L) IN
4 AC (N) IN
CN3104
AC (L) IN 1
AC (N) IN 4
CN6007
5 AC (N) OUT
1 AC (L) OUT
CN3103
AC (N) OUT 5
AC (L) OUT 1
S3101
G (POWER SUPPLY)
T6004 PIT AUDIO
D6302 RECT
T6005 PIT
D6308 RECT
D6309 RECT
D6310 RECT
D6301 RECT
D6300 RECT
D6304 RECT
IC6303 OVP
REF 1
K 3
CN6301
1 +17V
2 -17V
K
TO A BOARD CN1605
CN6302
1 +22V
2 -22V
3 15V
4 -15V
9 +6.5V
6 PROT
5 P.CONT
Y
TO D BOARD CN5013
CN6303
3 +6.5V
4 +6.5V
5 +6.5V
9 +10.5V
10 +10.5V
L
TO A BOARD CN1603
CN6304
1 +135V
Z
TO D BOARD CN5002
CN6300
5 STBY +5V
2 OVP
3 OCP
1 AC ON/OFF
G
TO A BOARD CN1606
D6015 RECT
RY6000
T6003 PFT
IC6002 FEED BACK
STBY+5V
IC6007 MAIN SW
IC6004 SWITCHING IC
VD 1
VC2 15
VB 18
VC1 16
VS 10
RT 7
COM 17
VG (H) 2
VG (L) 16
Q6004 MCM SW
IC6301 +B REG
D6100, D6106 RECT
D6104 RECT
T6100 SBT
Q6100, 6102 PROTECT
IC6302 STBY 5V REG
IN 4
OUT 5
STBY +5V
IC6304 REF VOLTAGE
A 2
K 3
REF 1
Q6304 VOLTAGE DET
Q6303 OCP
Q6301, 6302 PROTECT

7-2. FRAME SCHEMATIC DIAGRAM

7-3. CIRCUIT BOARDS LOCATION



A (AUDIO OUT, AUDIO PROTECT, TUNER

S (AUDIO PROCESS)

E (R/G/B/VM OUT, Y-C/J)

B3 (DRC, MID-X, VIDEO PROCESS)

AP (PJED, REGI CORRECTION)

D (H/V-DEF, HV, DY DRIVE)

FBT

FOCUS PACK

HV BLOCK

HV REG

CR (R CRT DRIVE)

CG (G CRT DRIVE)

CB (B CRT DRIVE)

ZR (DY, VM DRIVE)

ZG (DY, VM DRIVE)

ZB (DY, VM DRIVE)

CRT BRACKET (C)

CRT BRACKET (A)

G BRACKET

CRT BRACKET (B)

HB (AV INPUT, HP OUT)

HA (MAIN SWITCH)

CONTROL PANEL

G (POWER SUPPLY)

J (AV SELECT SW, VIDEO PROCESS)

M (MICRO CONTROL, TEXT)

A

B-5573?-<KEP>-KESSENZU-05

7-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

(1) Schematic Diagram of J (1/2) Board

Note:

- The parts marked "#" on schematic diagrams are not mounted.
- All capacitors are in µF unless otherwise noted. (pF: µµF) Capacitors without voltage indication are all 50 V.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4 W (CHIP : 1/10 W)

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-ground.
- : earth-chassis.
- All voltages are in V.
- Readings are taken with a 10 M digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ∗ : Can not be measured.
- NO MARK: Common
- < > : SECAM
- ( ) : NTSC 3.58 MHz
- Circled numbers are waveform references.
- : B + bus.
- : B – bus.
- : Signal path.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Terminal name of semiconductors in silk screen printed circuit (∗)

	Device	Printed symbol	Terminal name	Circuit
①	Transistor	T	Collector / Base / Emitter	
②	Transistor	—	Collector / Base / Emitter	
③	Diode		Cathode / Anode	
④	Diode	T	Cathode / Anode / (NC)	
⑤	Diode	—	Cathode / Anode (NC)	
⑥	Diode	T	Common / Anode / Cathode	
⑦	Diode	—	Common / Anode Cathode	
⑧	Diode	T	Common / Anode / Anode	
⑨	Diode	—	Common / Anode Anode	
⑩	Diode	T	Common / Cathode / Cathode	
⑪	Diode	—	Common / Cathode Cathode	
⑫	Diode	|	Anode / Cathode / Anode / Anode / Cathode / Anode	
⑬	Transistor (FET)	|	Drain / Source / Gate	
⑭	Transistor (FET)	⊢	Drain / Source / Gate	
⑮	Transistor (FET)	|	⊡ Source / ⊡ Drain / ⊡ Gate	
⑯	Transistor	|	⊡ Emitter / ⊡ Collector / ⊡ Base	
–	Discrete semiconductot			

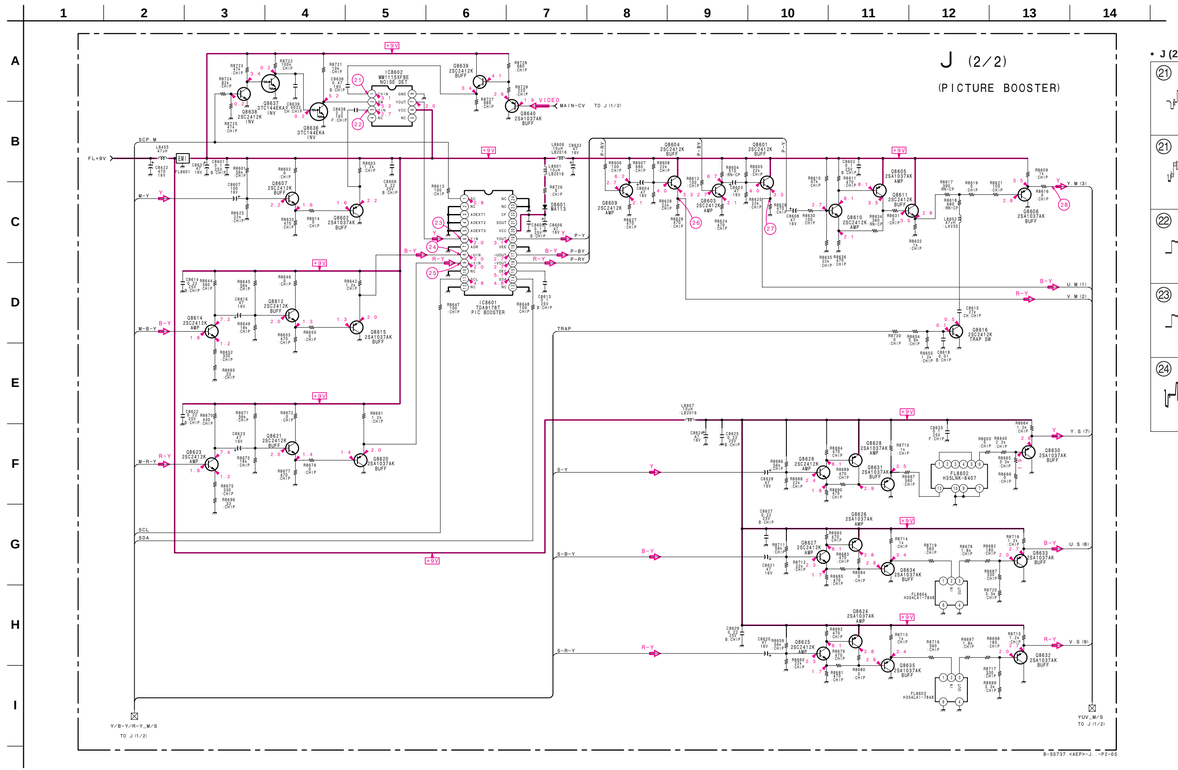
(Chip semiconductors that are not actually used are included.) Ver.1.0

Schematic diagram
J (1/2) board ➡

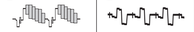
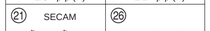
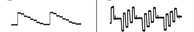
• J (1/2) BOARD WAVEFORMS

A	①	②	②	③	③	④	⑤	⑤	⑥	⑦	⑧	⑨	⑨	⑩	⑩	⑪	⑫	⑫	⑬	⑭	⑮	⑯
	PAL : 0.8 Vp-p (4.43 MHz) SECAM : 0.8 Vp-p (4.43 MHz) NTSC : 0.9 Vp-p (3.58 MHz)	PAL/NTSC	SECAM	PAL/NTSC	SECAM		PAL/NTSC	SECAM			PAL : 0.8 Vp-p (4.43 MHz) SECAM : 0.8 Vp-p (4.43 MHz) NTSC : 0.9 Vp-p (3.58 MHz)	PAL/NTSC	SECAM	PAL/NTSC	SECAM		PAL/NTSC	SECAM				
B		1.6 Vp-p (H)	1.8 Vp-p (H)	1.0 Vp-p (H)	0.7 Vp-p (H)	1.4 Vp-p (H)	1.6 Vp-p (H)	1.6 Vp-p (H)	2.5 Vp-p (14.5MHz)	0.3 Vp-p (16.2 MHz)		1.1 Vp-p (H)	1.1 Vp-p (H)	2.2 Vp-p (H)	2.4Vp-p (H)	0.8 Vp-p (H)	0.5 Vp-p (H)	0.3 Vp-p (H)	1.1 Vp-p (H)	1.1 Vp-p (H)	0.8 Vp-p (H)
C																						
D																						
E																						
F																						
G																						
H																						
I																						
J																						
K																						
L																						
M																						
N																						
O																						

(2) Schematic Diagram of J (2/2) Board



• J (2/2) BOARD WAVEFORMS

21	PAL/NTSC 1.6 Vp-p (H)	25	 1.1 Vp-p (H)
21	SECAM 1.7 Vp-p (H)	26	 1.3 Vp-p (H)
22	 0.8 Vp-p (H)	27	 1.3 Vp-p (H)
23	 0.8 Vp-p (H)	28	 1.6 Vp-p (H)
24	 1.3 Vp-p (H)		

• J BOARD SEMICONDUCTOR LOCATION

IC

	(Component Side)	(Conductor Side)	✻
IC8301	C-2		
IC8302	D-2		
IC8303	D-2		
IC8304	D-3		
IC8305	D-2		
IC8401	D-2		
IC8451	A-2		
IC8452	A-2		
IC8500	C-3		
IC8601	D-1		
IC8602	C-1		
IC8700	D-2		

TRANSISTOR

	(Component Side)	(Conductor Side)	✻
Q8302		D-1	①
Q8309		A-1	①
Q8311		A-1	①
Q8451		A-2	①
Q8452		A-2	①
Q8501		D-1	①
Q8502		D-1	①
Q8503		D-1	①
Q8504		D-1	①
Q8601	D-1		②
Q8602	C-1		②
Q8603		D-3	①
Q8604	D-1		②
Q8605		D-3	①
Q8606		D-3	①
Q8607		C-2	①
Q8609		D-2	①
Q8610	D-1		②
Q8611	D-1		②
Q8612	C-1		②
Q8614		A-2	①
Q8615	D-1		②
Q8616	D-1		②
Q8620	C-1		②
Q8621	C-1		②
Q8623		C-3	①
Q8624	D-1		②
Q8625		D-2	①
Q8626	E-1		②
Q8627		E-3	①
Q8628	E-1		②
Q8629		D-3	①
Q8630		E-2	①
Q8631		E-3	①
Q8632		E-2	①
Q8633		E-2	①
Q8634	E-1		②
Q8635	E-1		②
Q8636		C-2	①
Q8637		C-2	①
Q8638		D-2	①
Q8639		C-2	①
Q8640		C-2	①
Q8700		D-1	①
Q8801		A-3	①
Q8804	A-1		②
Q8805	A-1		②
Q8807	A-1		②
Q8809		A-3	①
Q8810	A-1		②
Q8811		A-3	①
Q8812	A-1		②
Q8813	A-1		②
Q8814		A-3	①
Q8815		A-3	①
Q8901		E-1	①
Q8902		D-1	①
Q8903		C-1	①
Q8904		C-1	①
Q8905		C-1	①
Q8906		B-1	①

DIODE

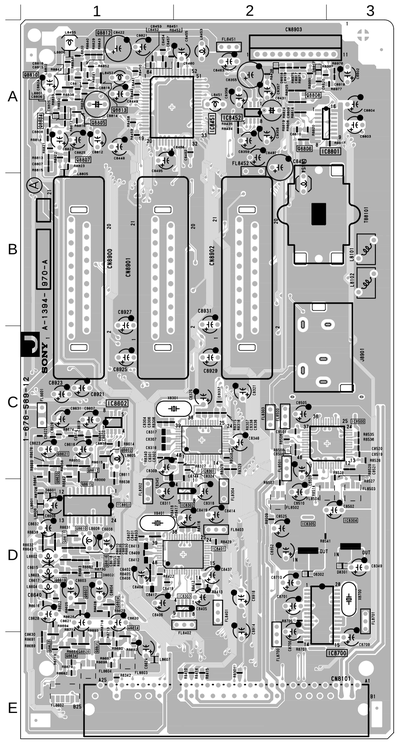
	(Component Side)	(Conductor Side)	✻
D8301		D-3	③
D8302		D-2	③
D8450		A-1	③
D8451		A-1	③
D8601	D-1		③
D8900		B-3	③
D8901		B-2	③
D8902		B-3	③
D8903		B-3	③
D8904		B-2	③
D8905		B-3	③
D8906		B-2	③
D8907		B-2	③
D8908		B-2	③
D8909		B-2	③
D8910		B-2	③
D8911		B-2	③
D8912		B-1	③
D8913		B-2	③
D8914		B-2	③
D8915		B-1	③
D8916	A-2		③
D8917	A-2		③
D8918		B-1	③
D8919		B-1	③
D8920		C-1	③
D8921		C-1	③
D8922		C-3	③
D8923		C-2	③
D8924		C-3	③
D8925		B-2	③
D8926		C-2	③
D8927		C-2	③
D8928		C-2	③
D8929		B-2	③
D8930		C-2	③
D8931		C-1	③
D8932		C-2	③
D8933		B-1	③

CRYSTAL

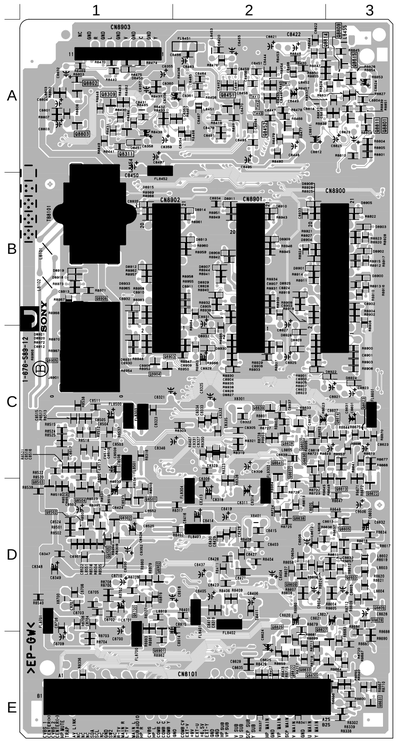
	(Component Side)	(Conductor Side)
X8301	C-1	
X8401	D-1	
X8700	D-3	

✻: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

– J BOARD – (Component Side)



(Conductor Side)



• A BOARD SEMICONDUCTOR LOCATION

IC

	(Component Side)	(Conductor Side)
IC1101	D-3	D-3
IC1401		D-3
IC1402	A-4	A-2
IC1601	E-2	E-4
IC1602	E-1	E-4
IC1603	E-3	E-3
IC1604	E-3	E-3
IC1605	D-1	D-5

TRANSISTOR

	(Component Side)	(Conductor Side)	✻
Q1101		E-4	①
Q1102		E-4	①
Q1103		D-4	①
Q1104		D-4	①
Q1105		C-4	①
Q1201		D-4	①
Q1202		D-4	①
Q1203		D-4	①
Q1204		D-4	①
Q1205		C-3	①
Q1206		D-4	①
Q1207		D-3	①
Q1301		A-5	①
Q1302		A-5	①
Q1303		B-5	①
Q1304		B-5	①
Q1305		A-5	①
Q1306		A-5	①
Q1307		D-5	①
Q1308		E-2	①
Q1401		A-2	①
Q1402		B-3	①
Q1404		B-3	①
Q1406		B-3	①
Q1408		A-2	①
Q1409		C-3	①
Q1410		A-2	①
Q1411		A-1	①
Q1412		A-1	①
Q1413		A-1	①
Q1421		D-1	①
Q1422		D-1	①

DIODE

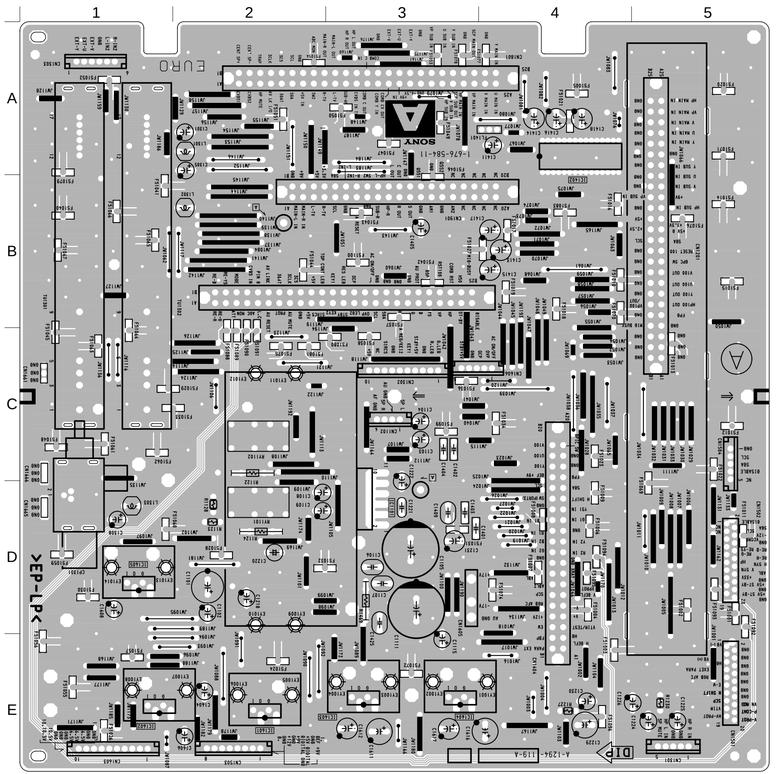
	(Component Side)	(Conductor Side)	✻
D1101		D-4	③
D1102		D-4	③
D1103		D-4	③
D1104		D-4	③
D1105		D-3	③
D1106		D-4	③
D1107		C-3	③
D1108		D-4	③
D1109		C-4	③
D1110		C-3	③
D1111		C-3	④
D1112		C-3	④
D1201		C-3	③
D1202		E-2	④
D1203		C-3	③
D1204		E-3	③
D1205		E-3	③
D1206		D-3	③
D1401		C-3	③
D1402		B-3	③
D1403		B-3	③
D1404		C-3	③
D1405		C-3	③
D1406		C-3	③
D1410		D-3	④
D1411		E-3	④
D1421		D-1	③

✻: **Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)**

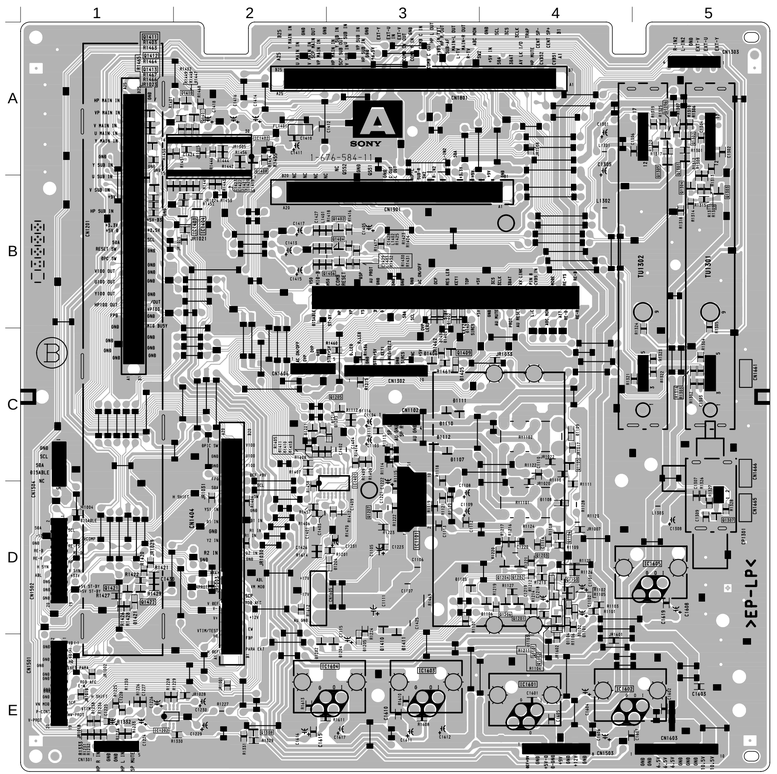
Schematic diagram

← J **(2/2) board**

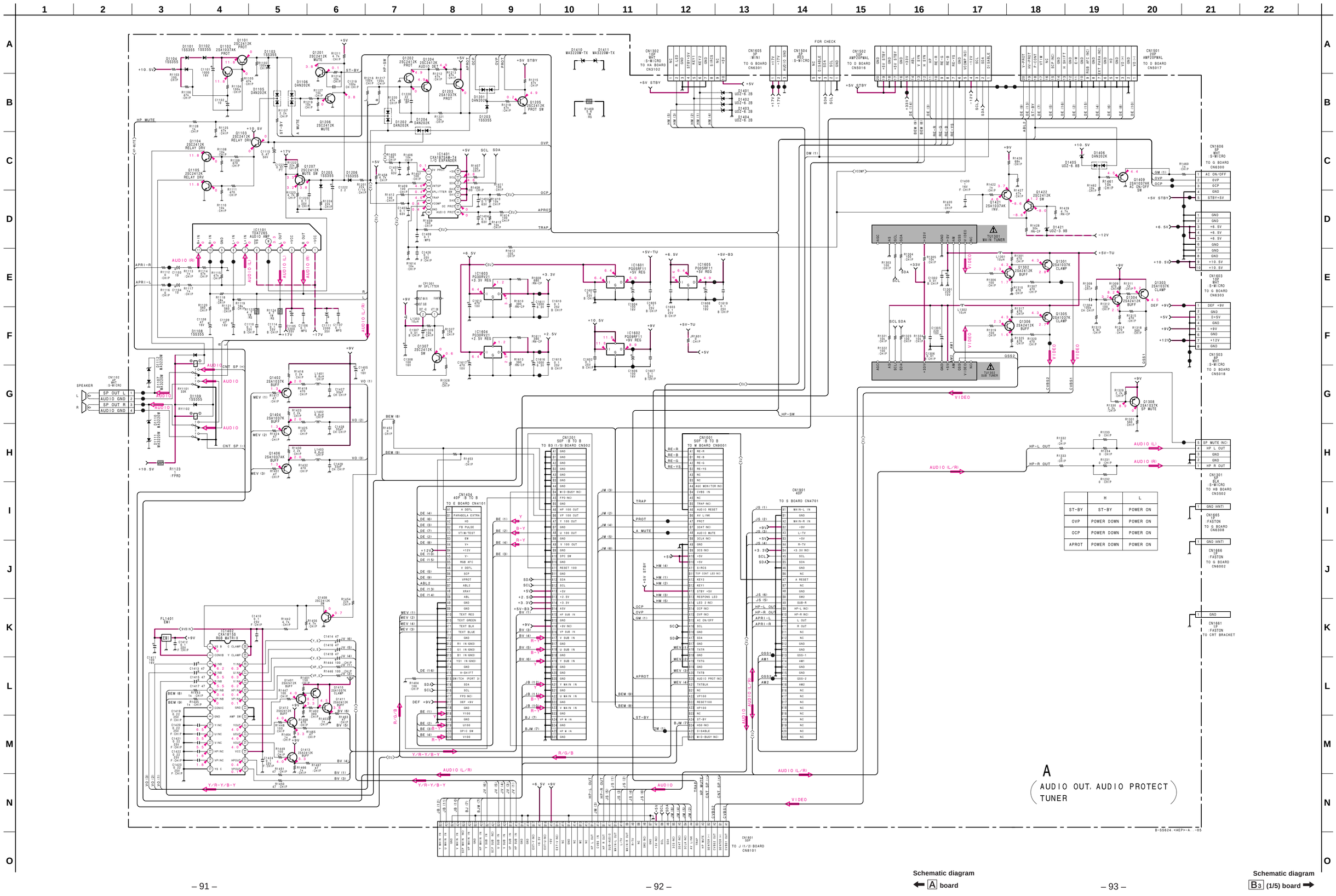
– A BOARD – (Component Side)



(Conductor Side)



(3) Schematic Diagram of A Board



	H	L
ST-BY	ST-BY	POWER ON
OVP	POWER DOWN	POWER ON
OCP	POWER DOWN	POWER ON
APROT	POWER DOWN	POWER ON

A
AUDIO OUT, AUDIO PROTECT TUNER

B-SS624 <AEP>-A . -05

B3 [DRC, MID-X, VIDEO PROCESS]

• **B3 BOARD SEMICONDUCTOR LOCATION**

IC

IC	(Component Side)	(Conductor Side)
IC313	A-4	
IC314	A-4	
IC315	A-4	
IC316	A-4	
IC501	B-1	
IC504	A-2	
IC505	B-3	
IC506	B-2	
IC601	A-1	
IC602	B-1	
IC603	A-1	
IC604		B-3
IC701	A-2	
IC704		A-2
IC705		A-3
IC801	B-3	
IC802	B-4	
IC901	B-2	

TRANSISTOR

TRANSISTOR	(Component Side)	(Conductor Side)	✱
Q304		B-2	①
Q501	B-1		②
Q502	B-1		②
Q503	B-1		②
Q510	B-1		②
Q511	B-1		②
Q512	B-1		②
Q513		B-4	①
Q514		B-4	①
Q515		B-4	①
Q516		B-3	①
Q517		A-3	①
Q518		A-3	①
Q519		A-3	①
Q521	B-1		②
Q522	B-1		②
Q523	B-1		②
Q524		B-3	①
Q601		A-4	①
Q602		A-4	①
Q901		B-3	①
Q902		B-3	①
Q903		B-3	①
Q904		A-1	⑯
Q905		A-1	⑯
Q907	B-2		②
Q908	B-2		②
Q909	B-2		②

DIODE

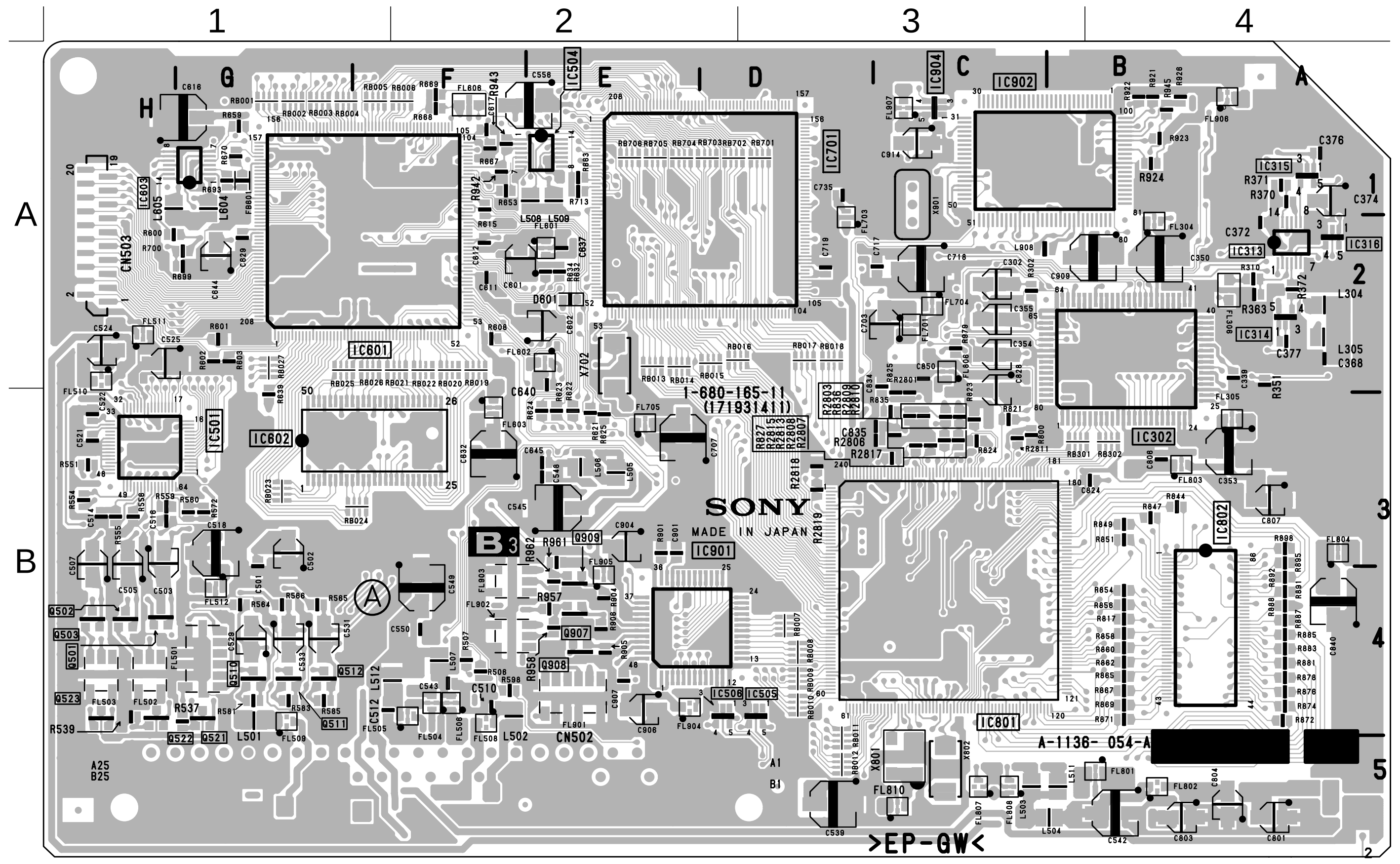
DIODE	(Component Side)	(Conductor Side)	✱
D501		B-3	③

CRYSTAL

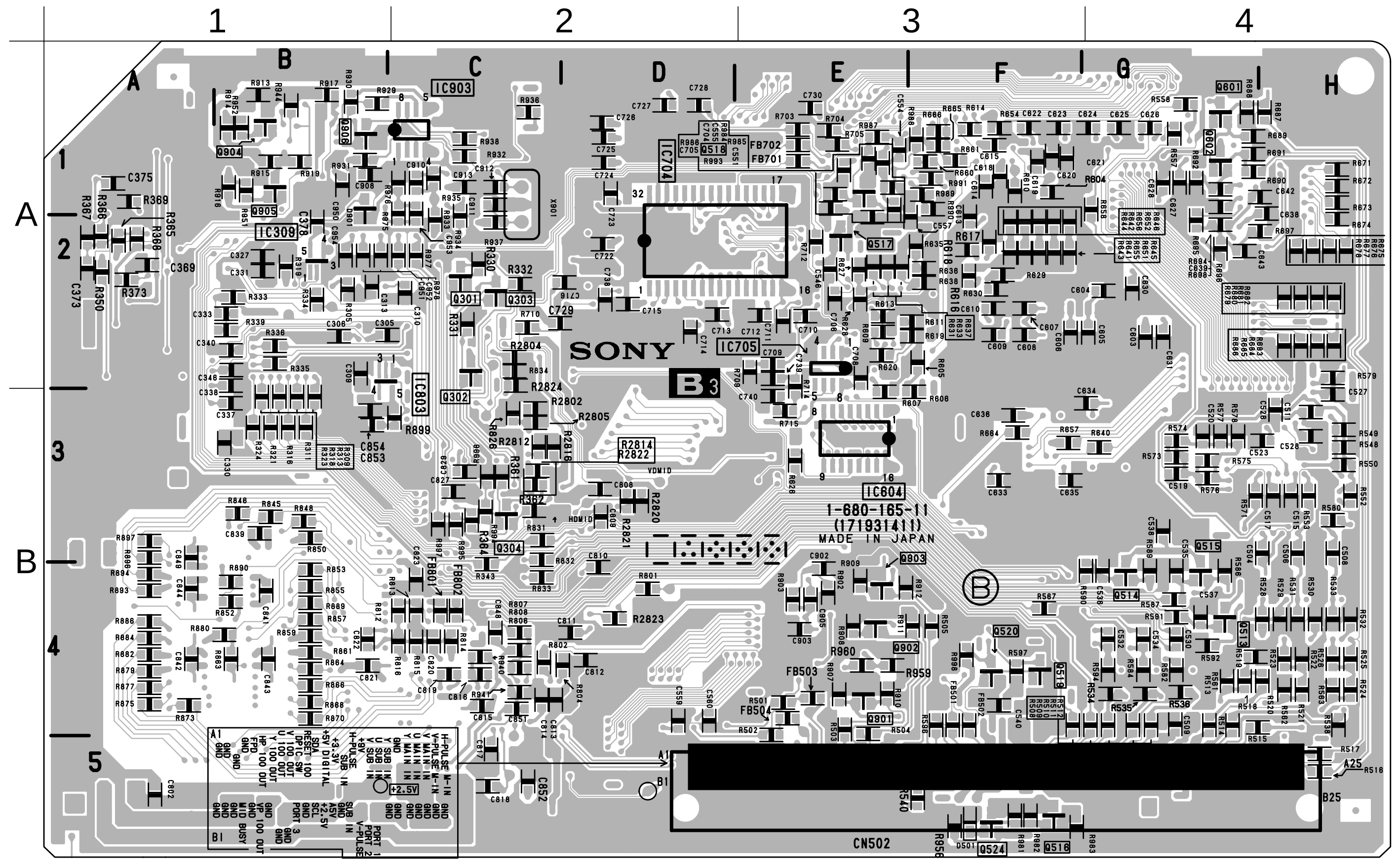
CRYSTAL	(Component Side)	(Conductor Side)
X702	A-2	
X802	B-3	

✱: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

– B3 Board – (Component Side)

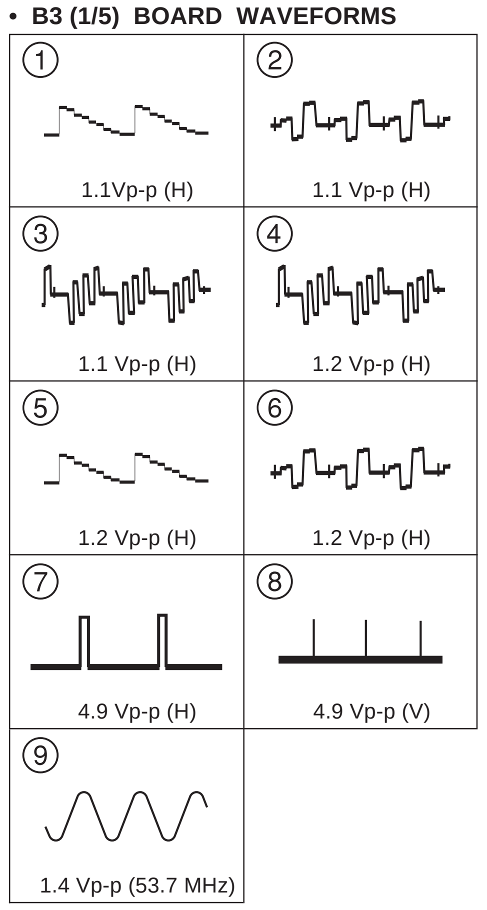


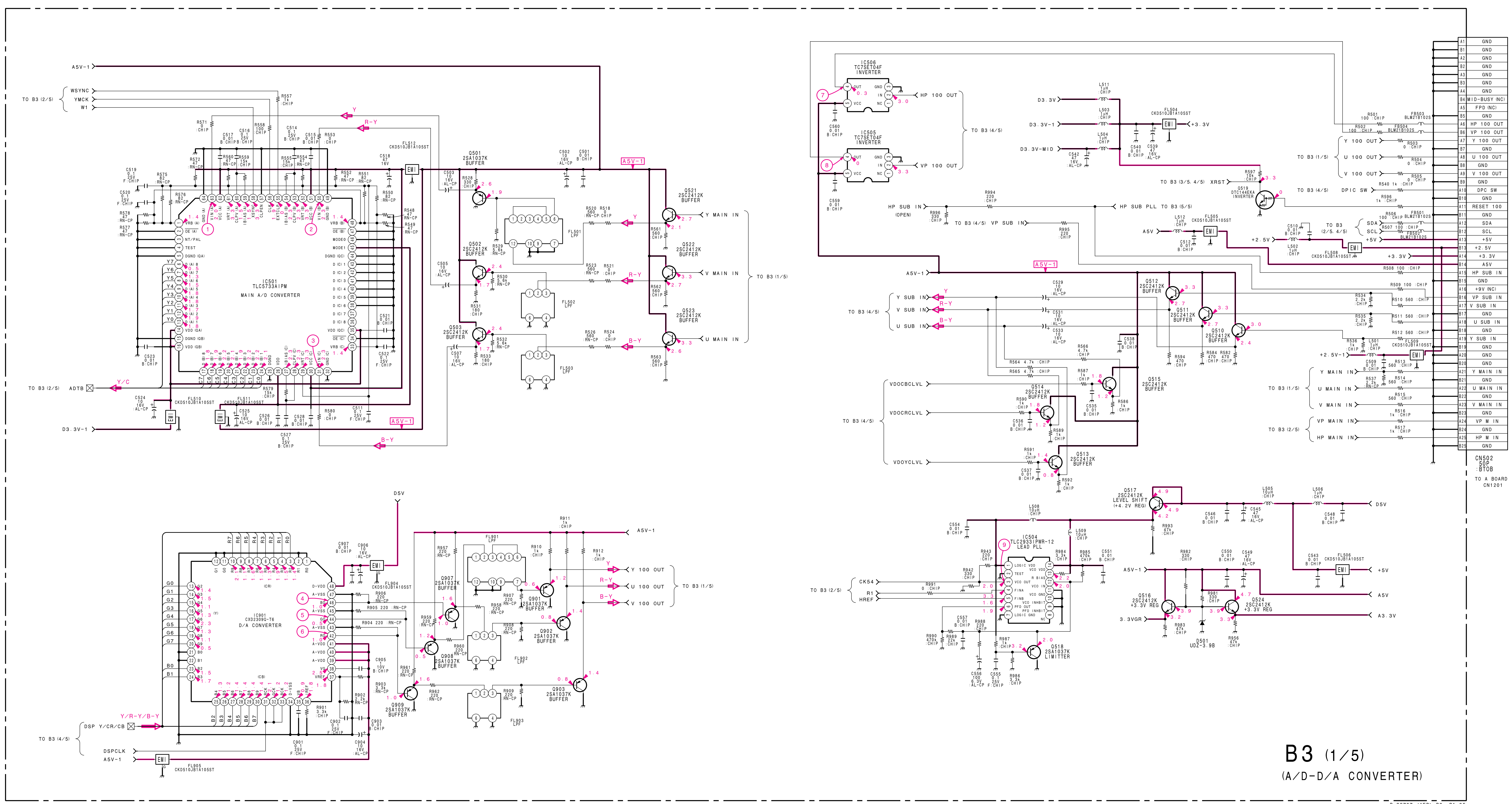
(Conductor Side)



(4) Schematic Diagram of B3 (1/5) Board

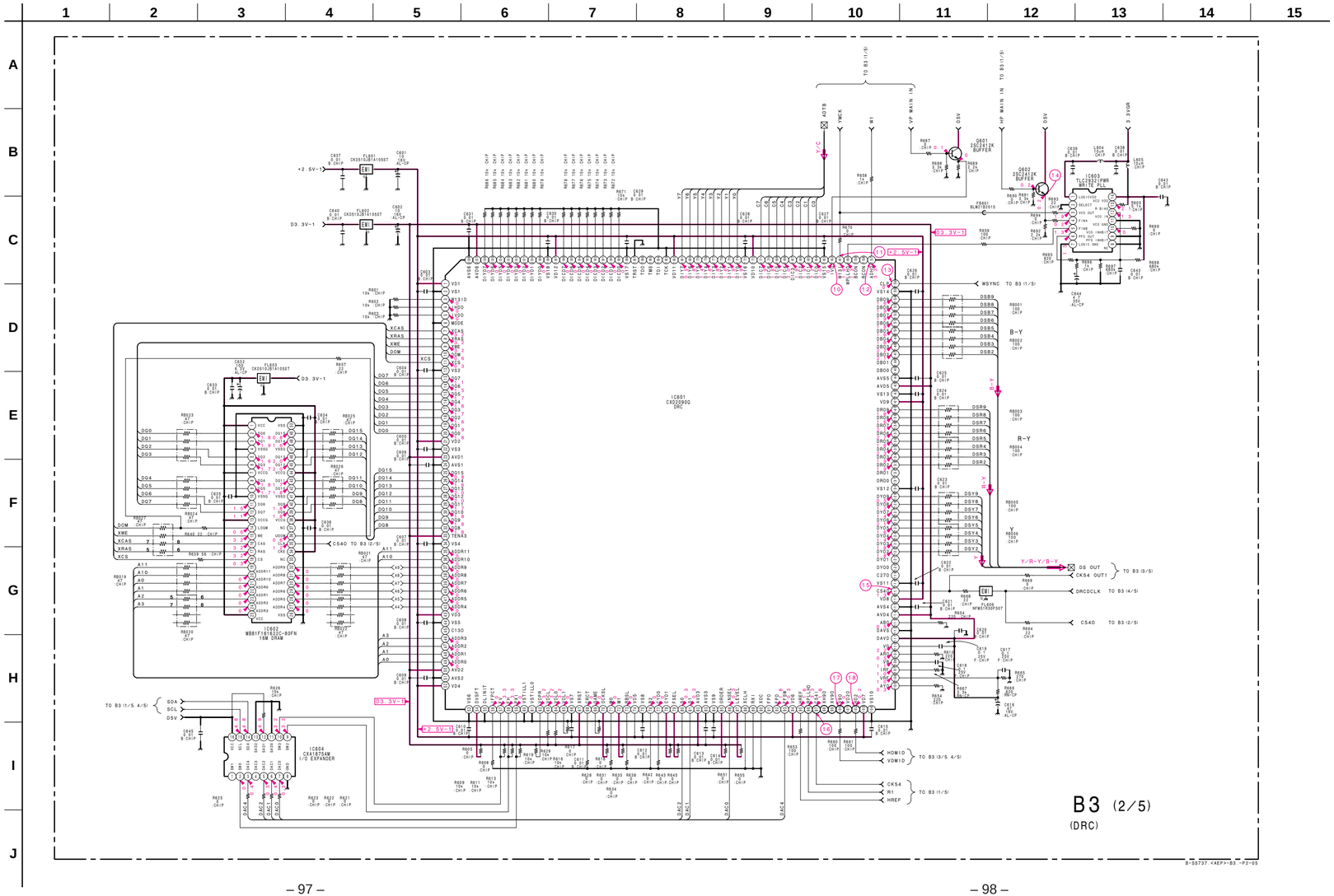
• **B3 (1/5) BOARD WAVEFORMS**





IC501
TLC5733AIPM
MAIN A/D CONVERTER
IC901
CXD2309Q-T6
D/A CONVERTER
IC506
TC7SET04F
INVERTER
IC505
TC7SET04F
INVERTER
IC504
TLC2933IPWR-12
LEAD PLL
Q501
2SA1037K
BUFFER
Q502
2SC2412K
BUFFER
Q503
2SC2412K
BUFFER
Q521
2SC2412K
BUFFER
Q522
2SC2412K
BUFFER
Q523
2SC2412K
BUFFER
Q907
2SA1037K
BUFFER
Q908
2SA1037K
BUFFER
Q909
2SA1037K
BUFFER
Q901
2SA1037K
BUFFER
Q902
2SA1037K
BUFFER
Q903
2SA1037K
BUFFER
Q519
DTC144EKA
INVERTER
Q512
2SC2412K
BUFFER
Q511
2SC2412K
BUFFER
Q510
2SC2412K
BUFFER
Q514
2SC2412K
BUFFER
Q515
2SC2412K
BUFFER
Q513
2SC2412K
BUFFER
Q517
2SC2412K
LEVEL SHIFT
(+4.2V REG)
Q516
2SC2412K
+3.3V REG
Q524
2SC2412K
+3.3V REG
Q518
2SA1037K
LIMITTER
D501
UDZ-3.9B
CN502
50P
:BTOB
TO A BOARD
CN1201
A5V-1
TO B3 (2/5)
WSYNC
YMCK
W1
ADTB
D3.3V-1
Y MAIN IN
V MAIN IN
U MAIN IN
TO B3 (1/5)
D5V
Y 100 OUT
U 100 OUT
V 100 OUT
TO B3 (4/5)
DSP Y/CR/CB
DSPCLK
HP 100 OUT
VP 100 OUT
D3.3V
D3.3V-MID
+3.3V
XRST
HP SUB IN
(OPEN)
HP SUB PLL TO B3 (5/5)
VP SUB IN
A5V
+2.5V
+5V
Y SUB IN
V SUB IN
U SUB IN
VDOCBCLVL
VDOCRCLVL
VDOYCLVL
CK54
R1
HREF
3.3VGR
A3.3V
DPIC SW
SDA
SCL
+2.5V-1
VP MAIN IN
HP MAIN IN
B3 (1/5)
(A/D-D/A CONVERTER)
B-SS737.<AEP>-B3.-P1-05

(5) Schematic Diagram of B3 (2/5) Board



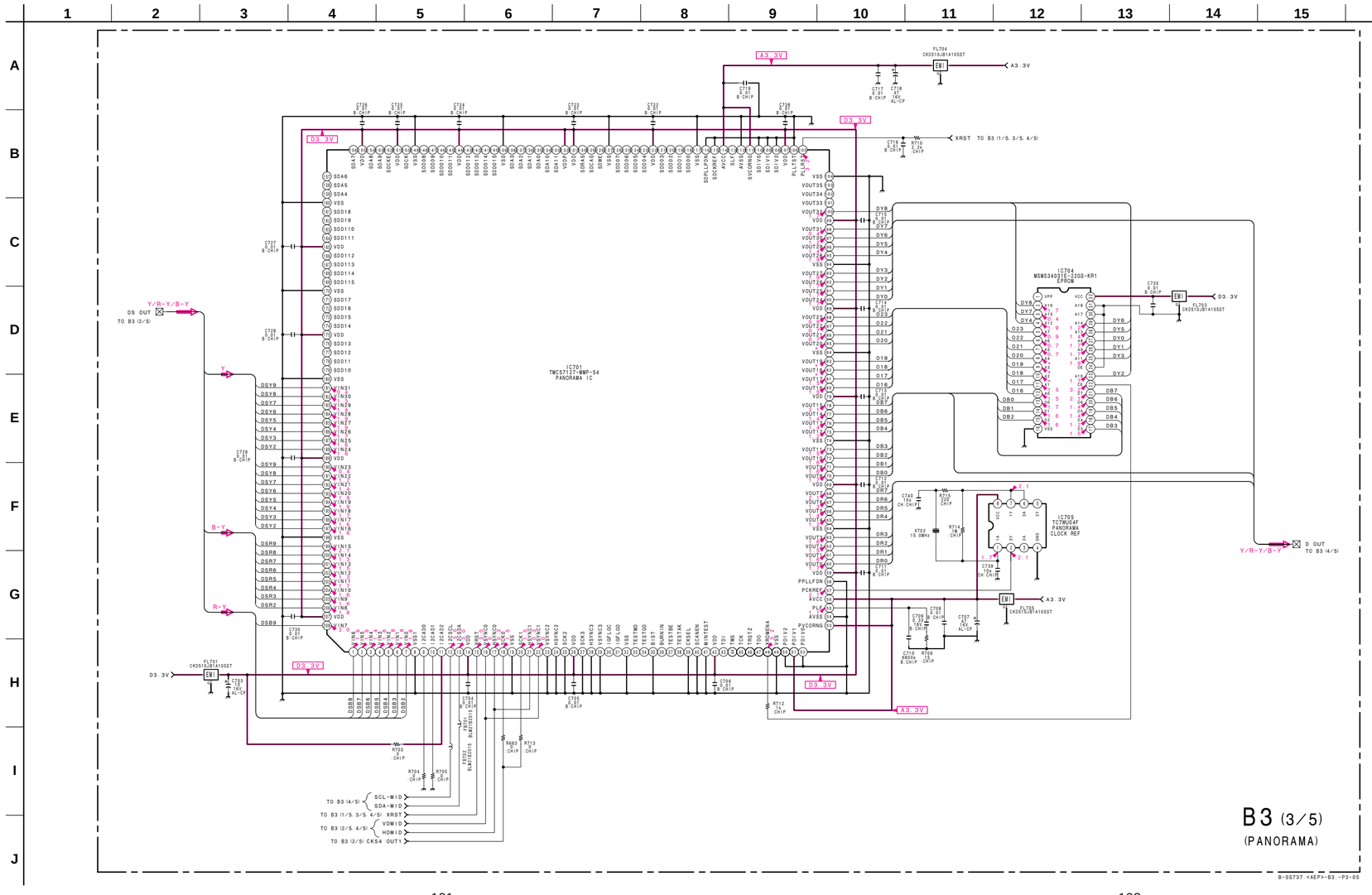
• **B3 (2/5) BOARD WAVEFORMS**

⑩ 3.1 Vp-p (V)	⑪ 3.9 Vp-p (13.4 MHz)
⑫ 3.6 Vp-p (H)	⑬ 3.4 Vp-p (H)
⑭ 3.2 Vp-p (H)	⑮ 1.3 Vp-p (53.7 MHz)
⑯ 1.4 Vp-p (53.7 MHz)	⑰ 3.5 Vp-p (V)
⑱ 3.4Vp-p (H)	

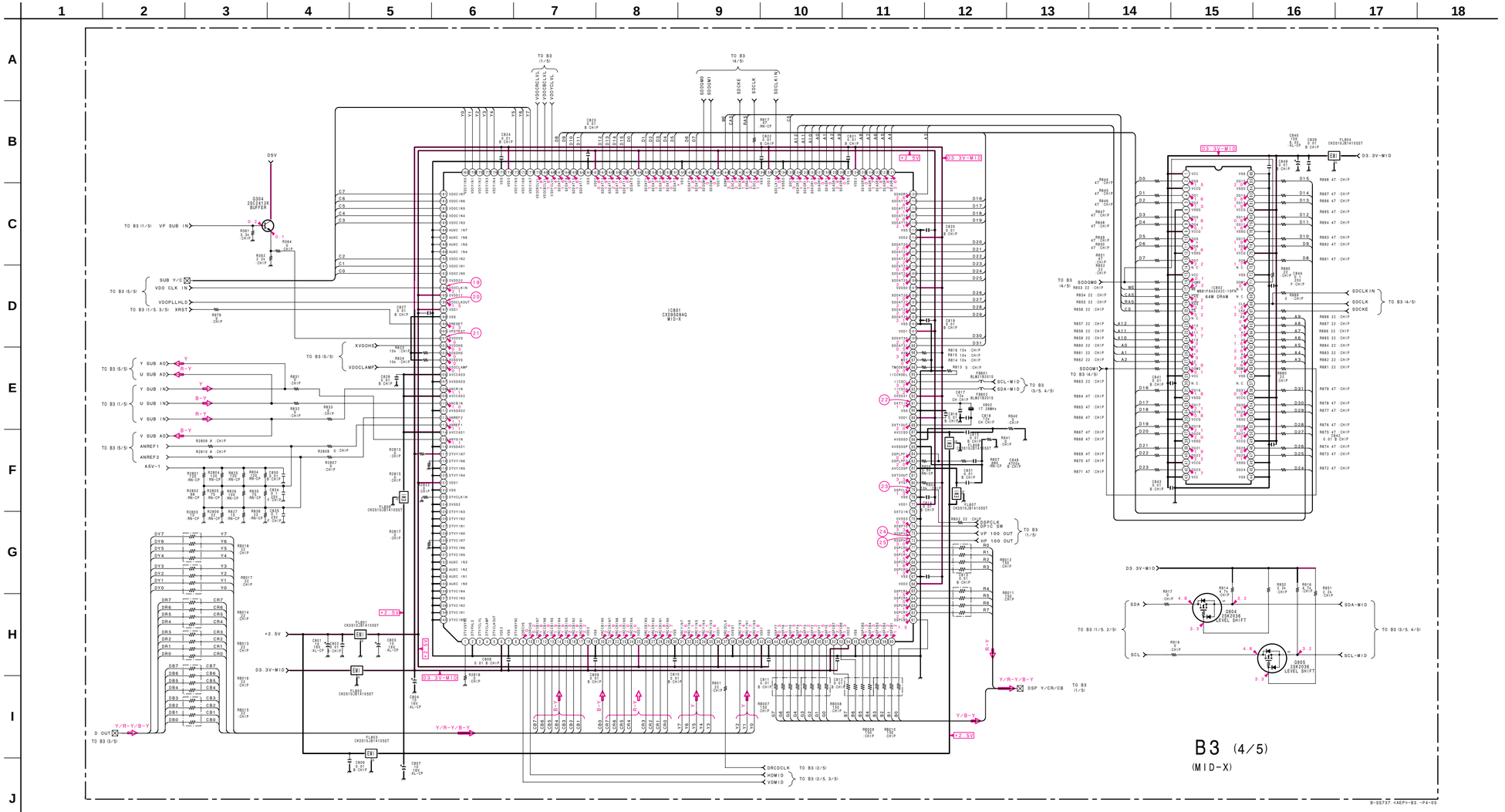
Schematic diagram
← B3 (2/5) board

Schematic diagram
B3 (3/5) board →

(6) Schematic Diagram of B3 (3/5) Board



(7) Schematic Diagram of B3 (4/5) Board



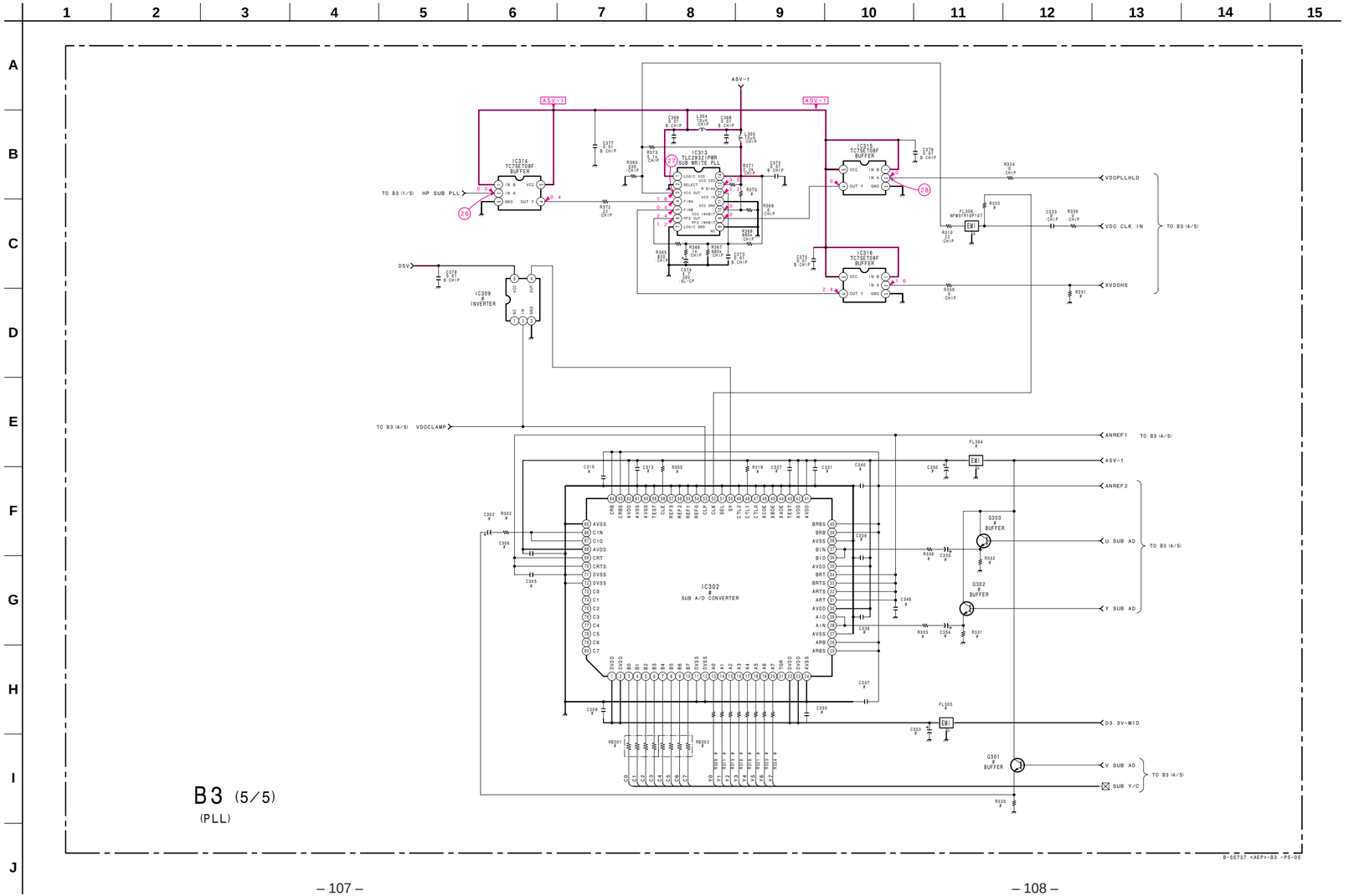
• B3 (4/5) BOARD WAVEFORMS

19 — 3.2 Vp-p (23 MHz)	23 — 1.1 Vp-p (54 MHz)
20 — 4.5 Vp-p (36 MHz)	24 — 3.4 Vp-p (V)
21 — 1.9 Vp-p (V)	25 — 3.4 Vp-p (H)
22 — 1.5 Vp-p (17.28 MHz)	

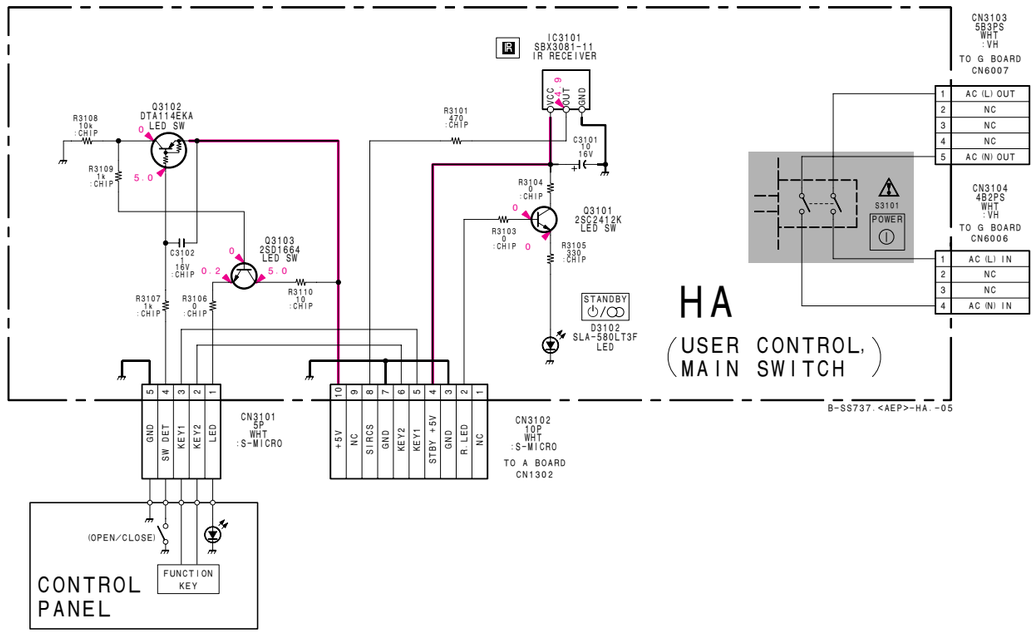
(8) Schematic Diagram of B3 (5/5) Board

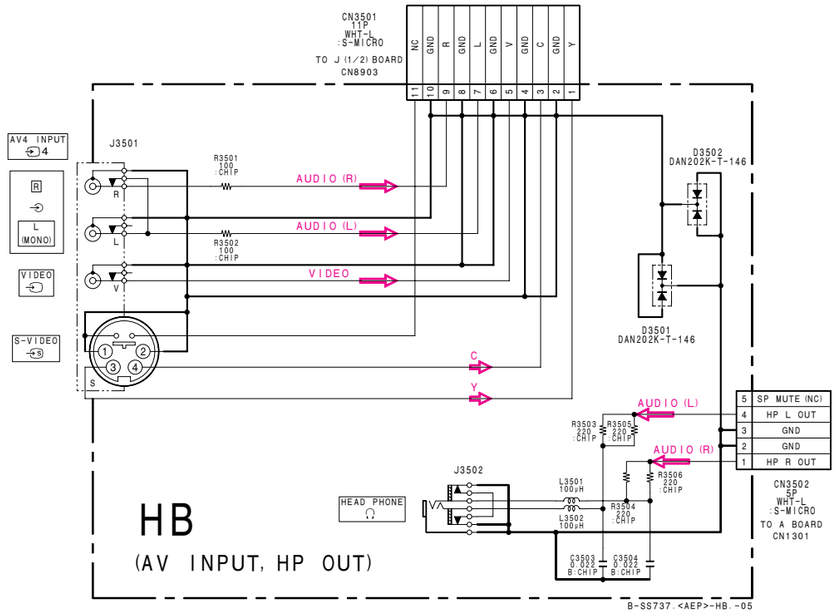
• **B3 (5/5) BOARD WAVEFORMS**

(26)	3.2 Vp-p (H)
(27)	3.4 Vp-p (23 MHz)
(28)	4.6 Vp-p (36 MHz)

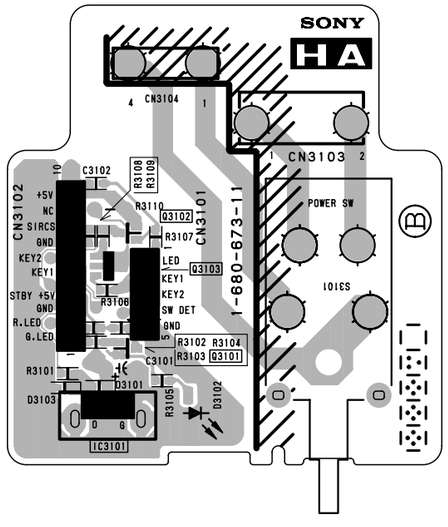


(9) Schematic Diagram of HA and HB Boards





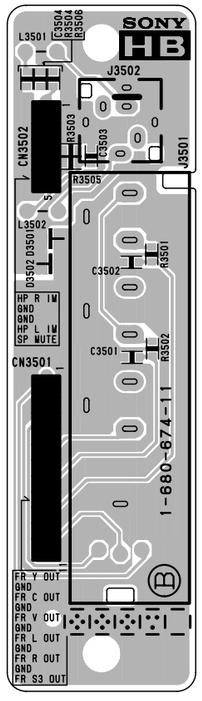
HA (USER CONTROL, MAIN SWITCH) HB (AV INPUT, HP OUT)



HA BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
Q3101 – 3103	①

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

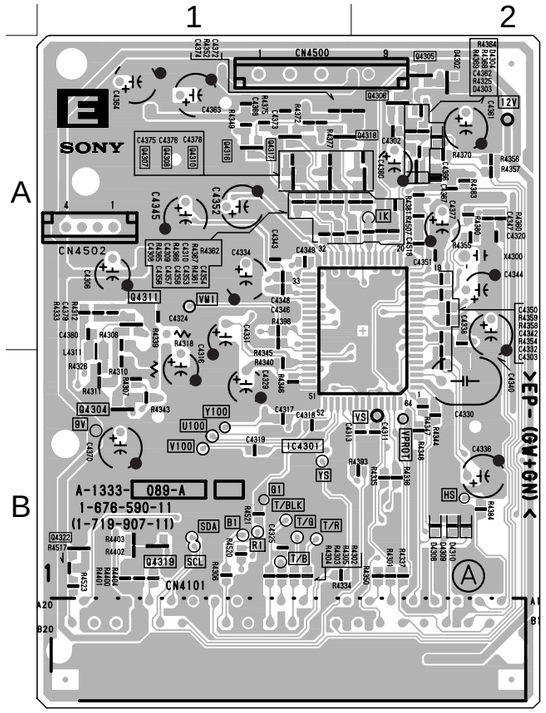


HB BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

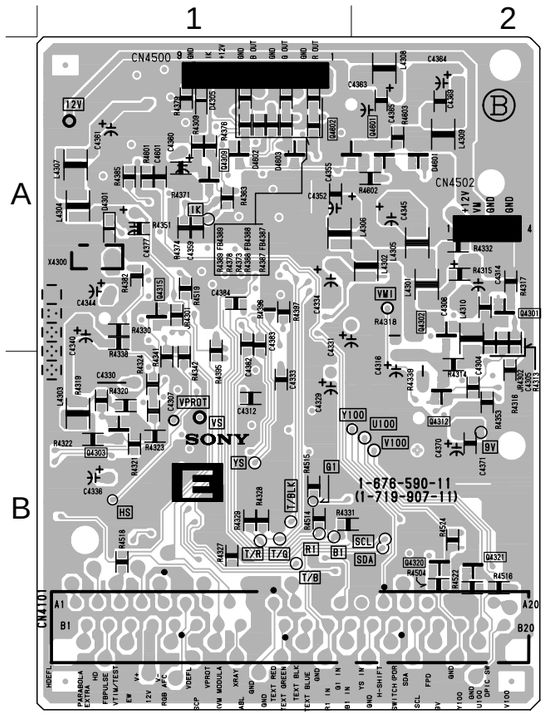
Ref.	∗
D3501, 3502	⑧

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

– E BOARD – (Component Side)



(Conductor Side)



• E BOARD SEMICONDUCTOR LOCATION

IC					
	(Component Side)	(Conductor Side)			
IC4301	B-1				

TRANSISTOR				DIODE			
	(Component Side)	(Conductor Side)	✱		(Component Side)	(Conductor Side)	✱
Q4301		A-2	①	D4304	A-2		③
Q4302		A-2	①	D4305		A-1	③
Q4303		B-1	①	D4601		A-2	④
Q4304	B-1		②	D4602		A-1	⑧
Q4307	A-1		②	D4603		A-1	⑧
Q4308	A-1		②				
Q4310	A-1		②	CRYSTAL			
Q4316	A-1		②				
Q4317	A-1		②		(Component Side)	(Conductor Side)	
Q4318	A-2		②	X4300		A-1	
Q4320		B-2	①				

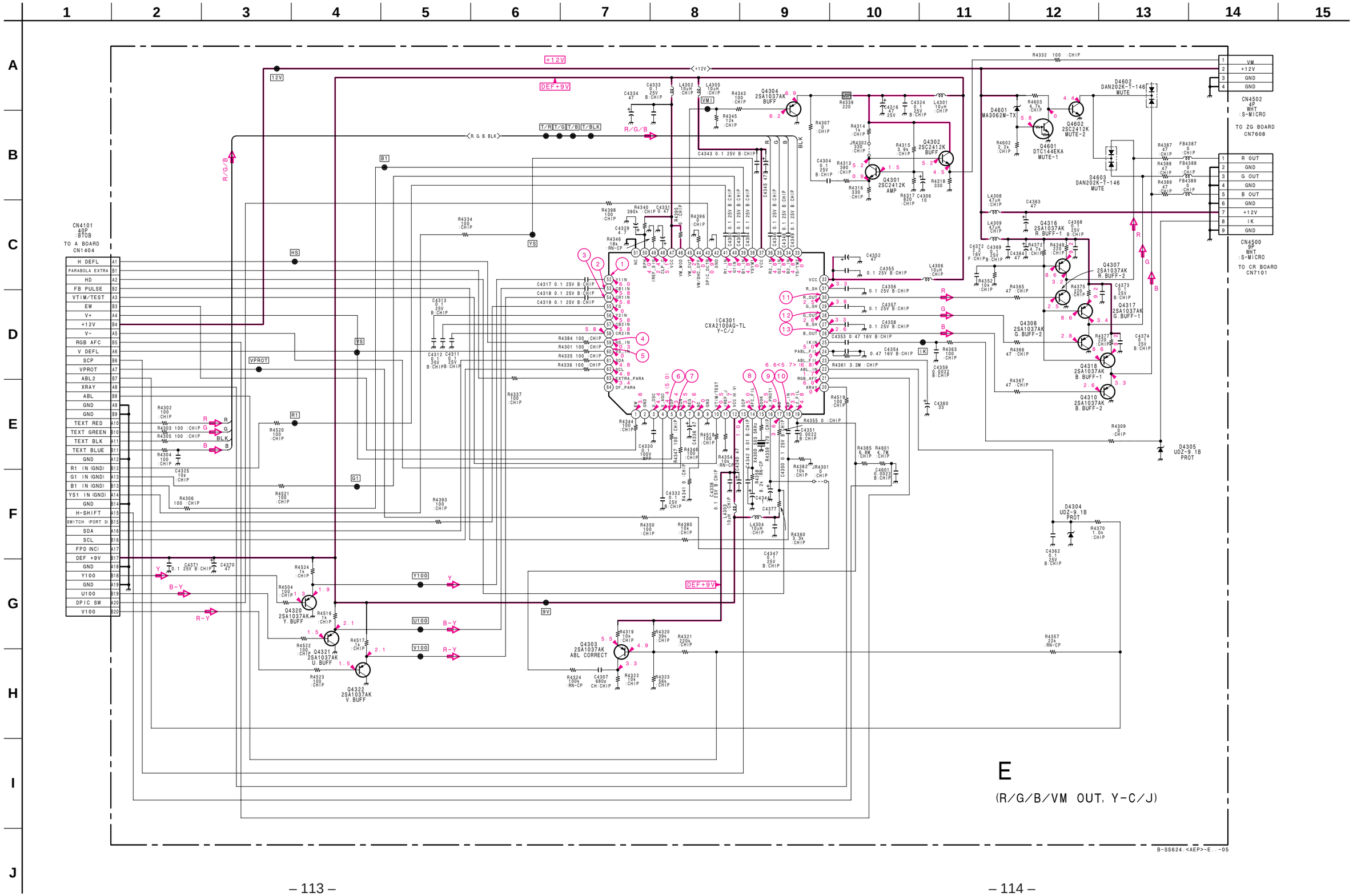
Q4321		B-2	①	
Q4322	B-1		②	
Q4601		B-2	①	
Q4602		A-1	①	

✱: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

• E BOARD WAVEFORMS

① 0.5 Vp-p (H)	② 0.6 Vp-p (H)	③ 0.6 Vp-p (H)	④ 5.0 Vp-p (H)	⑤ 4.9 Vp-p (V)
⑥ 1.5 Vp-p (V)	⑦ 1.5 Vp-p (V)	⑧ 0.1 Vp-p (503.5 kHz)	⑨ 5.7 Vp-p (H)	⑩ 2.3 Vp-p (H)
⑪ 2.3 Vp-p (H)	⑫ 2.2 Vp-p (H)	⑬ 2.3 Vp-p (H)		

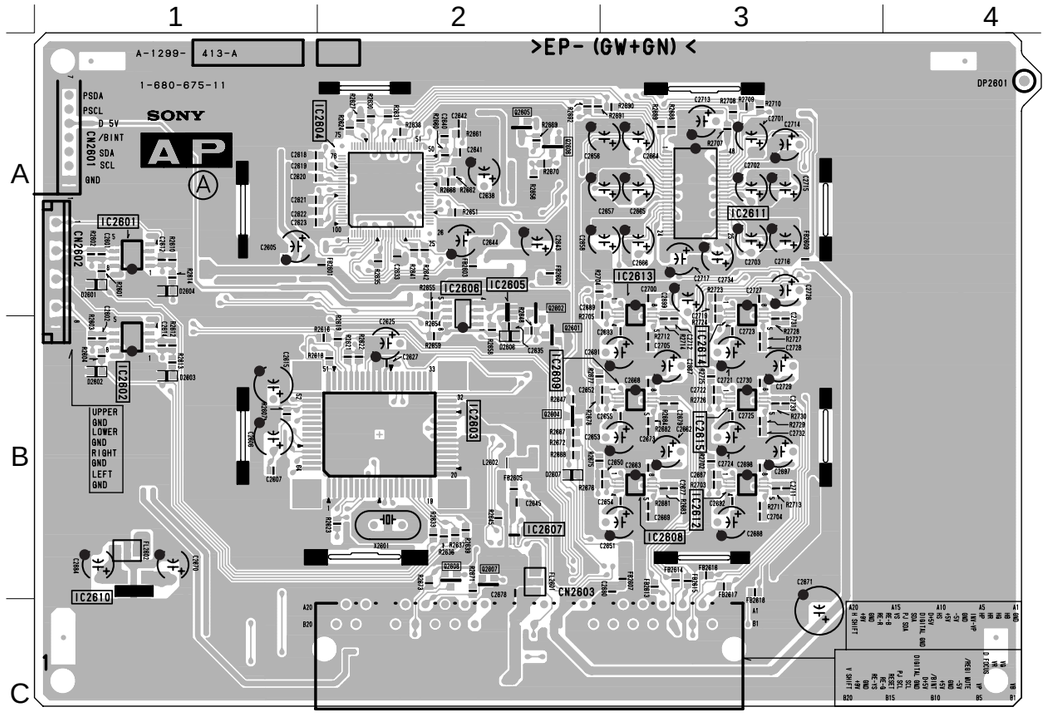
(10) Schematic Diagram of E Board



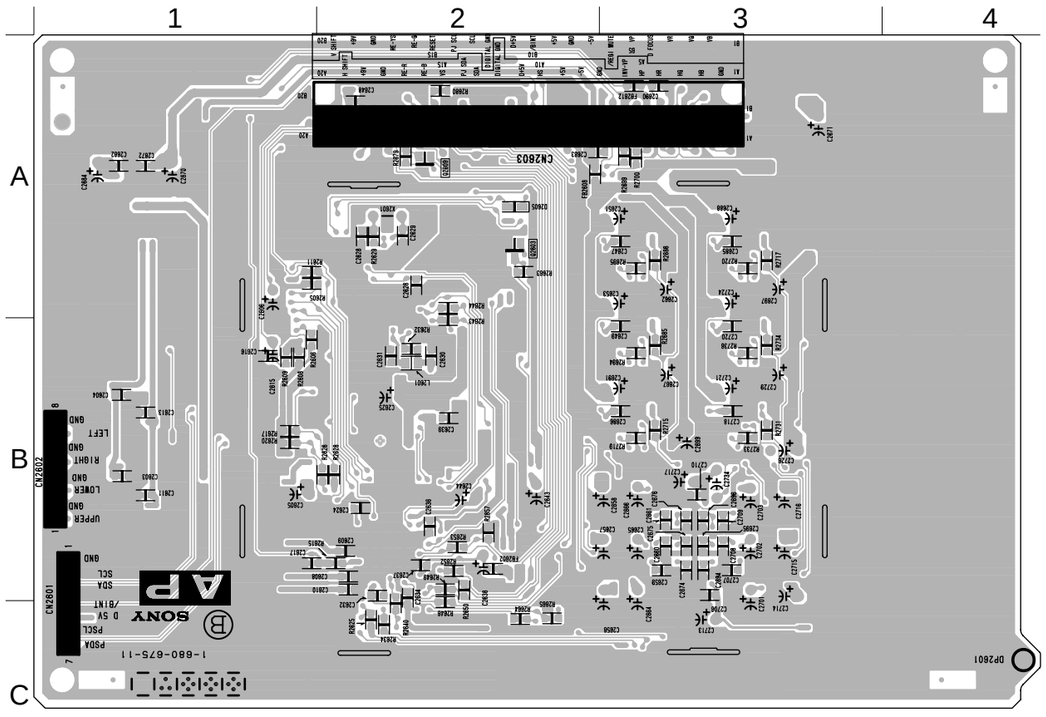
AP

[PJED,
REGI CORRECTION]

– AP BOARD – (Component Side)



(Conductor Side)



• AP BOARD SEMICONDUCTOR LOCATION

IC

	(Component Side)	(Conductor Side)
IC2601	A-1	
IC2602	B-1	
IC2603	B-2	
IC2604	A-2	
IC2605	A-2	
IC2606	A-2	
IC2607	B-2	
IC2608	B-3	
IC2609	B-3	
IC2610	B-1	
IC2611	A-3	
IC2612	B-3	
IC2613	A-3	
IC2614	A-3	
IC2615	B-3	

TRANSISTOR

	(Component Side)	(Conductor Side)	✻
Q2603		A-2	①
Q2607	B-2		②
Q2608	B-2		②
Q2609		A-2	①

DIODE

	(Component Side)	(Conductor Side)	✻
D2601	A-1		③
D2602		B-1	③
D2603		B-1	③
D2604	A-1		③
D2605		A-2	③

CRYSTAL

	(Component Side)	(Conductor Side)
X2601	B-2	

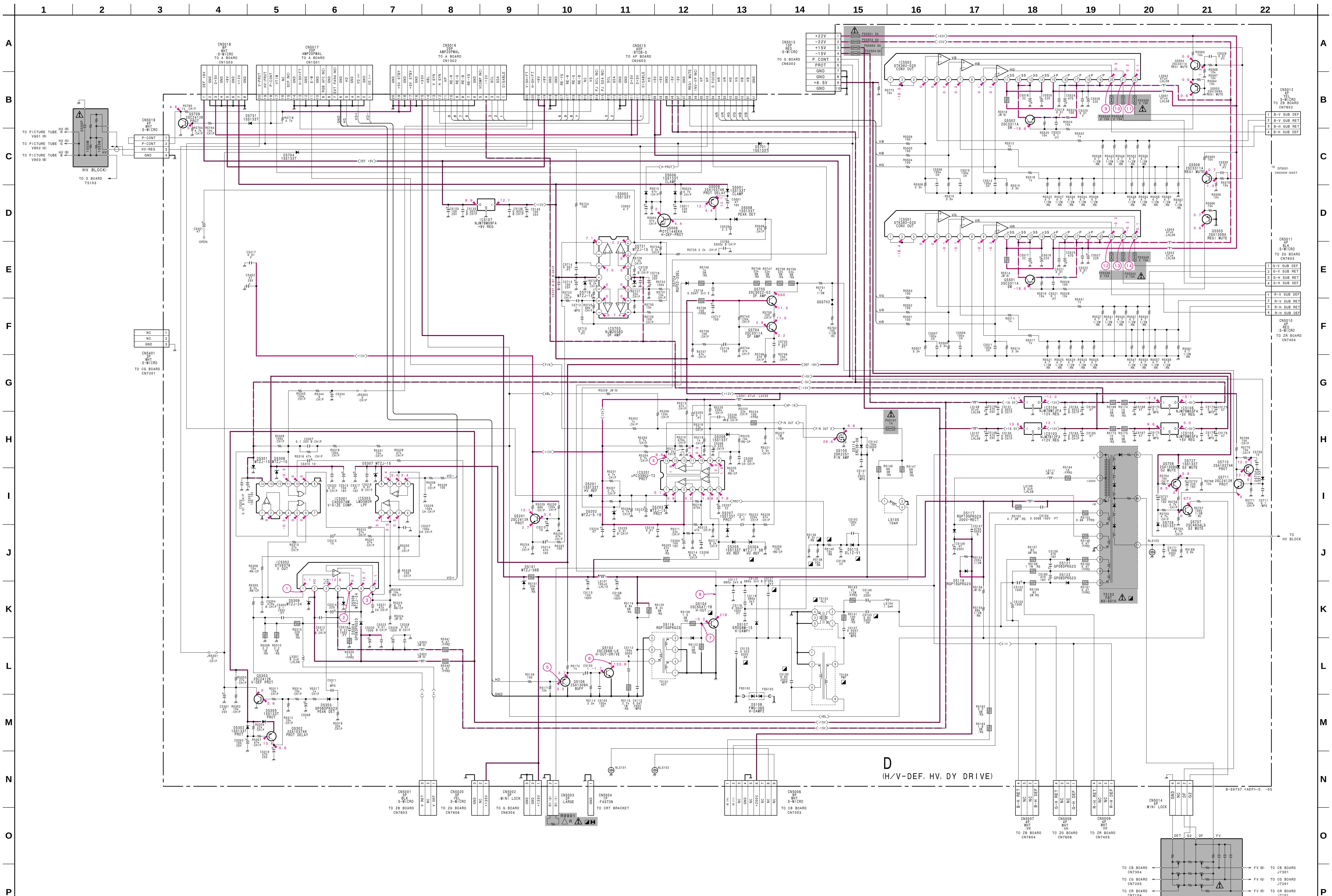
✻: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

• AP BOARD WAVEFORMS

① 4.9 Vp-p (500 kHz)	⑧ 1.0 Vp-p (V)
② 4.9 Vp-p (8.9 MHz)	⑨ 0.9 Vp-p (V)
③ 4.9 Vp-p (H)	⑩ 1.3 Vp-p (V)
④ 4.9 Vp-p (V)	⑪ 1.9 Vp-p (V)
⑤ 4.9 Vp-p (V)	⑫ 1.4 Vp-p (V)
⑥ 0.9 Vp-p (15.5 MHz)	⑬ 2.1 Vp-p (V)
⑦ 2.7 Vp-p (12 MHz)	

AP
(PJED, REGI CORRECTION)

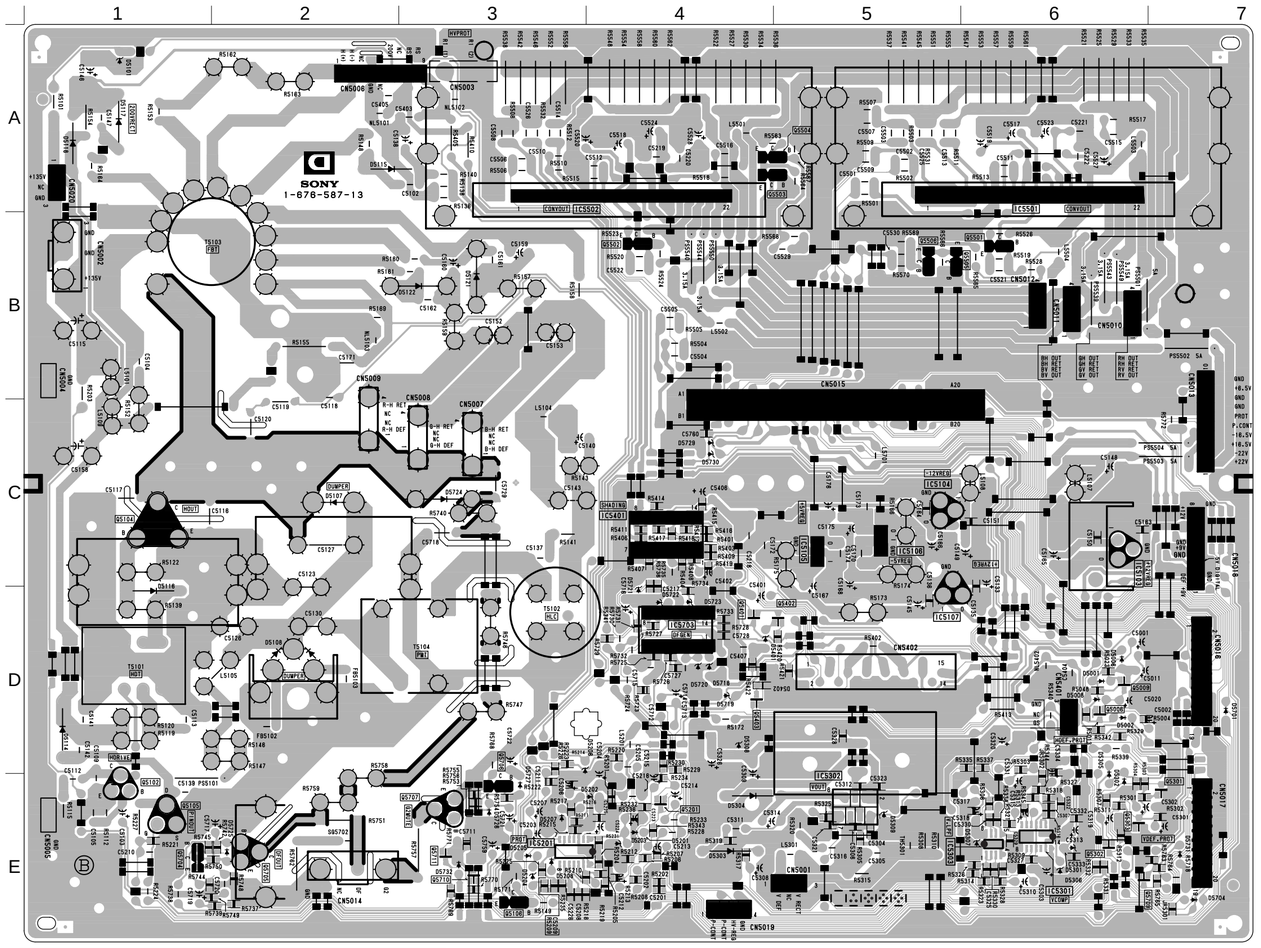
(12) Schematic Diagram of D Board


D
(H/V-DEF, HV, DY DRIVE)
CN5018 8P WHT :S-MICRO TO A BOARD CN1503
CN5017 20P AMP20PMAL TO A BOARD CN1501
CN5016 20P AMP20PMAL TO A BOARD CN1502
CN5015 40P :BTOB-S TO AP BOARD CN2603
CN5013 10P RED :S-MICRO TO G BOARD CN6302
CN5019 4P WHT :S-MICRO
CN5401 3P WHT :S-MICRO TO CG BOARD CN7201
CN5012 4P YEL :S-MICRO TO ZB BOARD CN7802
CN5011 4P BLK :S-MICRO TO ZG BOARD CN7603
CN5010 4P RED :S-MICRO TO ZR BOARD CN7404
CN5001 3P BLK :S-MICRO TO ZB BOARD CN7803
CN5020 3P YEL :S-MICRO TO ZG BOARD CN7606
CN5002 3P :MINI LOCK TO G BOARD CN6304
CN5003 2P :LARGE
CN5004 1P :FASTON TO CRT BRACKET
CN5006 9P WHT :S-MICRO TO CB BOARD CN7303
CN5007 4P WHT :VH TO ZB BOARD CN7804
CN5008 4P WHT :VH TO ZG BOARD CN7606
CN5009 4P WHT :VH TO ZR BOARD CN7405
CN5014 4P :MINI LOCK
(HV BLOCK)
TO D BOARD T5103
(FOCUS PACK)
TO HV BLOCK
IC5502 STK392-020 CONV. OUT
IC5501 STK392-020 CONV. OUT
IC5107 NJM78M09FA +9V. REG
IC5703 NJM2058D DF AMP
IC5301 CA0007AM V-SIZE COMP.
IC5303 LM358DR LPF
IC5302 STV9379 V OUT
IC5201 μPC339G2-T2 PROT
IC5104 NJM79M12FA -12V. REG
IC5103 NJM7812FA +12V. REG
IC5106 NJM79M05FA -5V REG
IC5105 NJM78M05FA +5V REG
T5101 HDT
T5102 HLC
T5103 FBT NX-4010
T5104 PMT
Q5104 2SC5047-YB H-OUT
Q5102 2SC2688-LK H-OUT-DRIVE
Q5106 2SA1309A BUFF
Q5105 2SK2251 PIN AMP
Q5705 2SC5022-02 DF AMP
Q5704 2SC3311A DF AMP
Q5006 DTC144EKA H-DEF-PROT
Q5009 2SA1037AK PROT. DELAY
B-SS737.<AEP>-D..-05

• D BOARD WAVEFORMS

① 1.0 Vp-p (V)	⑧ 1245 Vp-p (H)
② 56.0 Vp-p (V)	⑨ 22.8 Vp-p (V)
③ 0.8 Vp-p (V)	⑩ 17.8 Vp-p (V)
④ 12.5 Vp-p (H)	⑪ 38.3 Vp-p (V)
⑤ 5.4 Vp-p (H)	⑫ 31.3 Vp-p (V)
⑥ 221.5 Vp-p (H)	⑬ 22.3 Vp-p (V)
⑦ 9.0 Vp-p (H)	⑭ 22.3 Vp-p (V)

– D BOARD –



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

• D BOARD SEMICONDUCTOR LOCATION

IC		
IC5103	C-6	
IC5104	C-5	
IC5105	C-4	
IC5106	C-5	
IC5107	D-5	
IC5201	E-3	
IC5301	E-6	
IC5302	E-5	
IC5303	E-6	
IC5501	A-6	
IC5502	A-3	
IC5703	D-4	

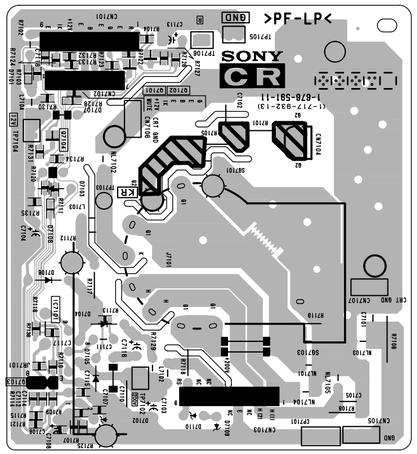
TRANSISTOR		
Q5006	D-6	① ∗
Q5009	D-6	①
Q5102	E-1	–
Q5104	C-1	–
Q5105	E-1	–
Q5106	E-3	–
Q5201	E-4	①
Q5302	E-6	①
Q5303	E-6	①
Q5501	B-6	–
Q5504	A-5	–
Q5505	B-5	–
Q5506	B-5	–
Q5704	E-1	–
Q5705	E-2	–
Q5709	E-7	①
Q5710	E-3	①
Q5711	E-3	①

DIODE		
D5001	D-6	– ∗
D5002	D-6	–
D5006	D-6	–
D5008	D-6	–
D5101	A-1	–
D5107	C-2	–
D5108	D-2	–
D5114	D-1	–
D5115	A-2	–
D5116	D-1	–
D5117	A-1	–
D5118	A-1	–
D5121	B-3	–
D5122	B-3	–
D5201	E-4	–
D5202	E-4	–
D5203	E-4	–
D5204	E-3	–
D5205	E-3	–
D5207	E-3	–
D5208	E-3	–
D5301	E-6	–
D5302	E-6	–
D5303	E-4	–
D5304	E-4	–
D5305	E-6	–
D5306	E-6	–
D5307	E-6	–
D5308	D-4	–
D5309	E-5	–
D5701	D-7	–
D5704	E-7	–
D5719	D-4	–
D5721	D-4	–
D5724	C-3	–
D5726	E-3	–
D5727	E-3	–
D5731	E-7	–
D5732	E-3	–

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

CR [R CRT DRIVE] ZR [DY, VM DRIVE]

– CR BOARD –

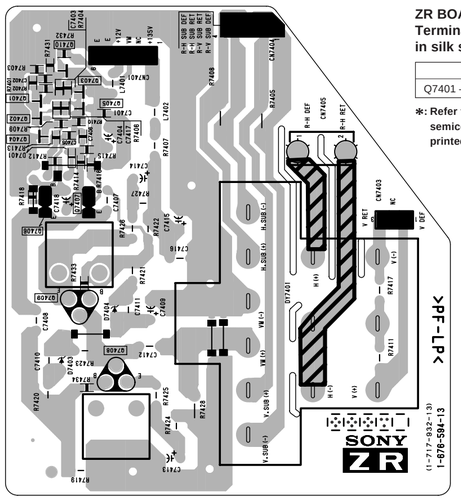


CR BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
D7108	③
Q7101, 7104	①

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

– ZR BOARD –



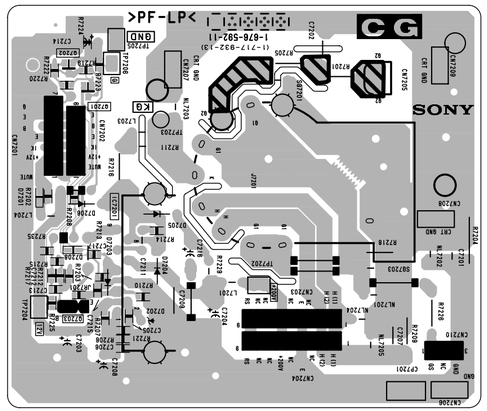
ZR BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
Q7401 – 7405, 7410	①

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

CG [G CRT DRIVE] ZG [DY, VM DRIVE]

– CG BOARD –



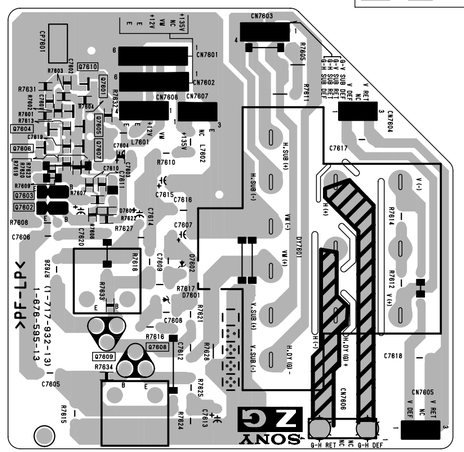
CG BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
D7208	③
Q7201, 7202	①

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

– ZG BOARD –



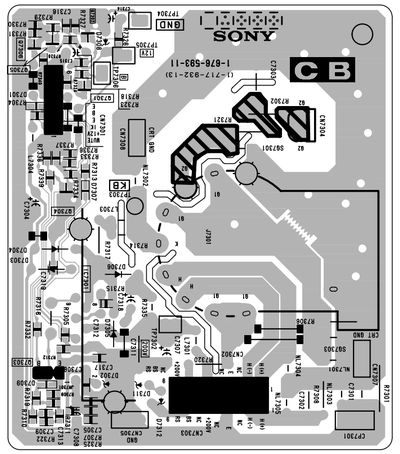
ZG BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
Q7601, 7604 – 7607, Q7610	①

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

CB [B CRT DRIVE] ZB [DY, VM DRIVE]

– CB BOARD –

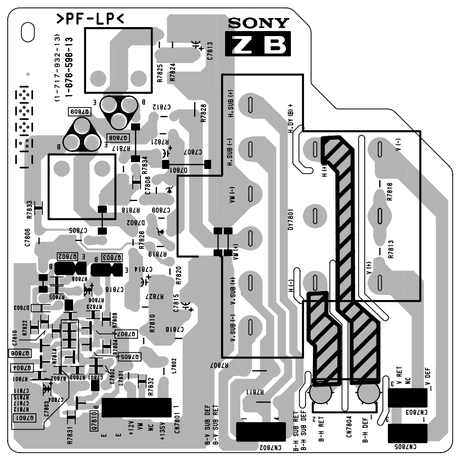


CB BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
D7307, 7309	③
Q7301, 7302, 7305, 7306	①

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

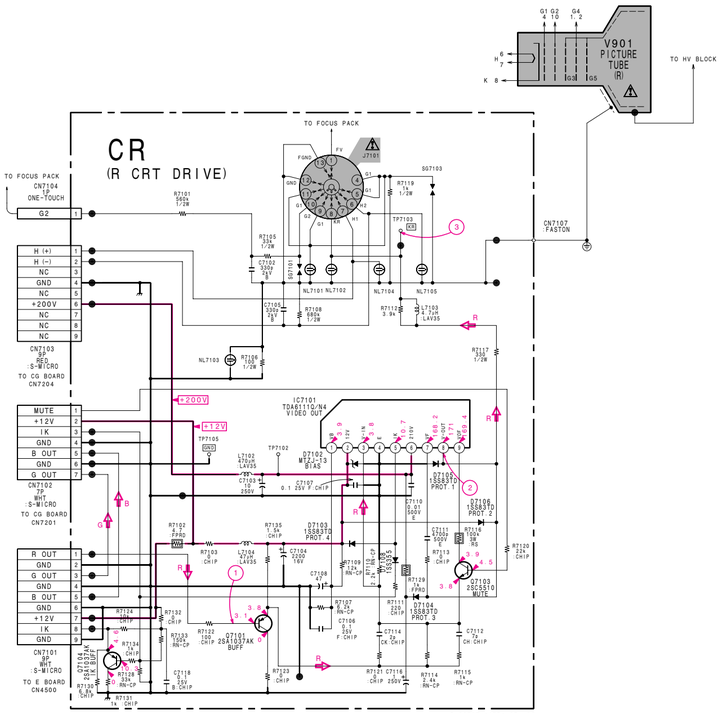
– ZB BOARD –



ZB BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

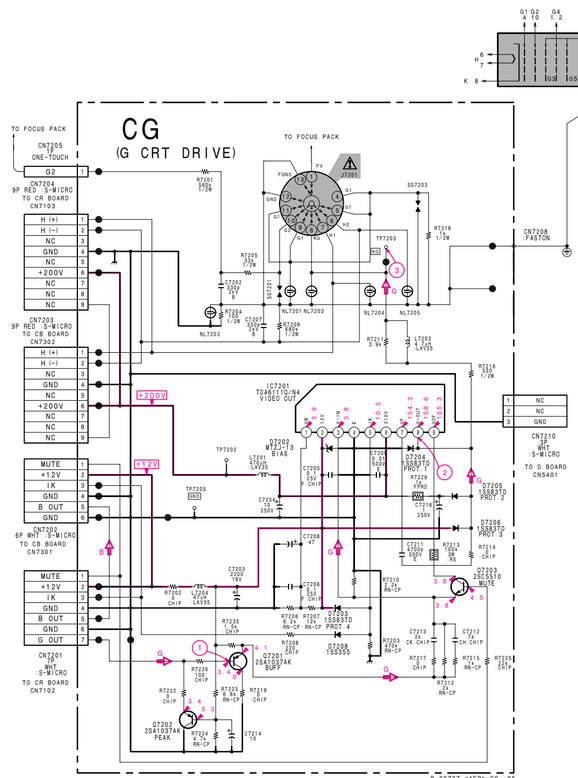
Ref.	∗
Q7801, 7804 – 7807, Q7810	①

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)



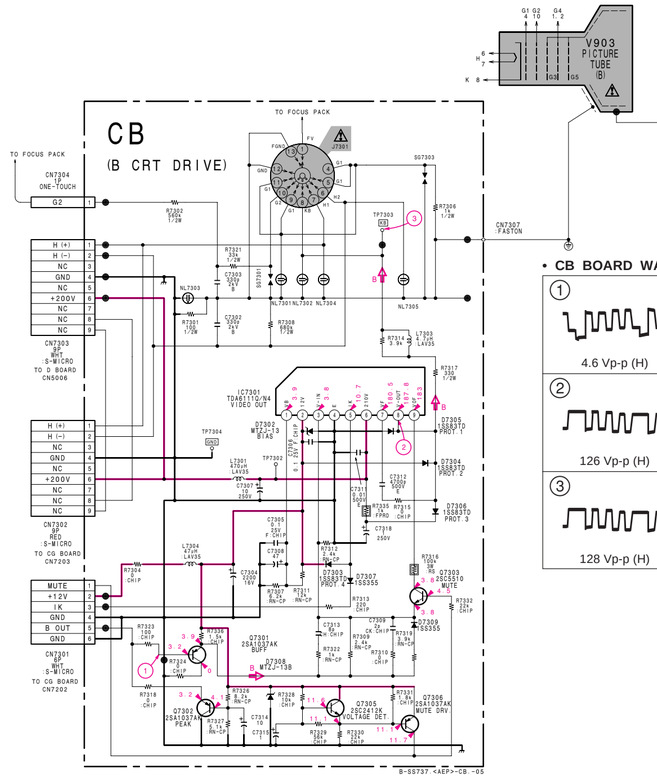
• CR BOARD WAVEFORMS

①	②	③
4.8 Vp-p	86 Vp-p (H)	88 Vp-p (H)



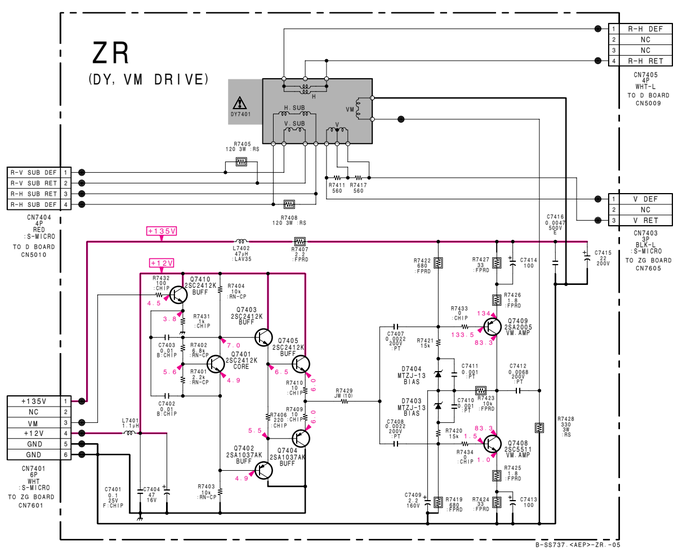
• CG BOARD WAVEFORMS

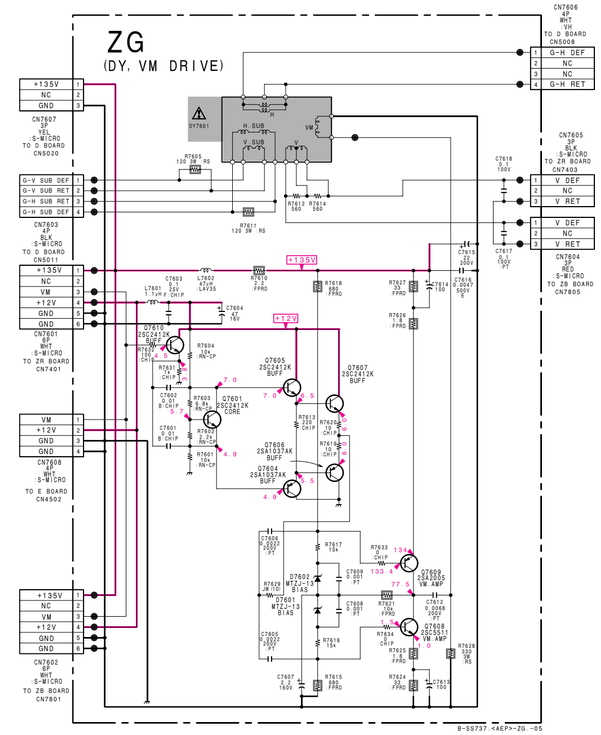
①	②	③
4.7 Vp-p (H)	114 Vp-p (H)	114 Vp-p (H)

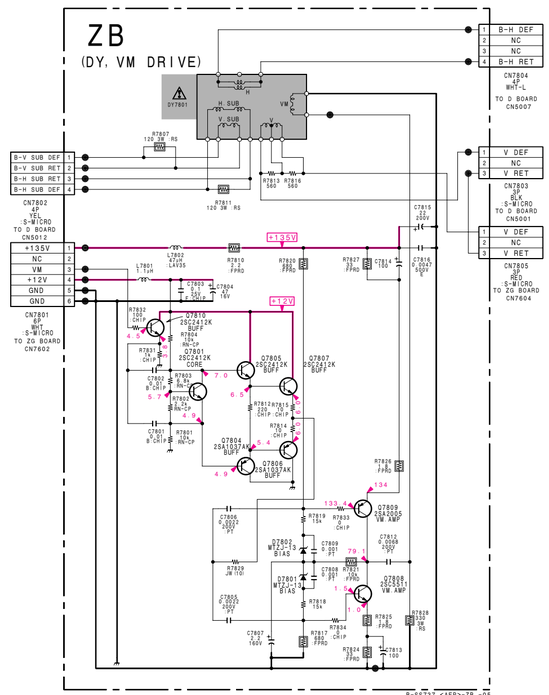


• CB BOARD WAVEFORMS

①	②	③
4.6 Vp-p (H)	126 Vp-p (H)	128 Vp-p (H)



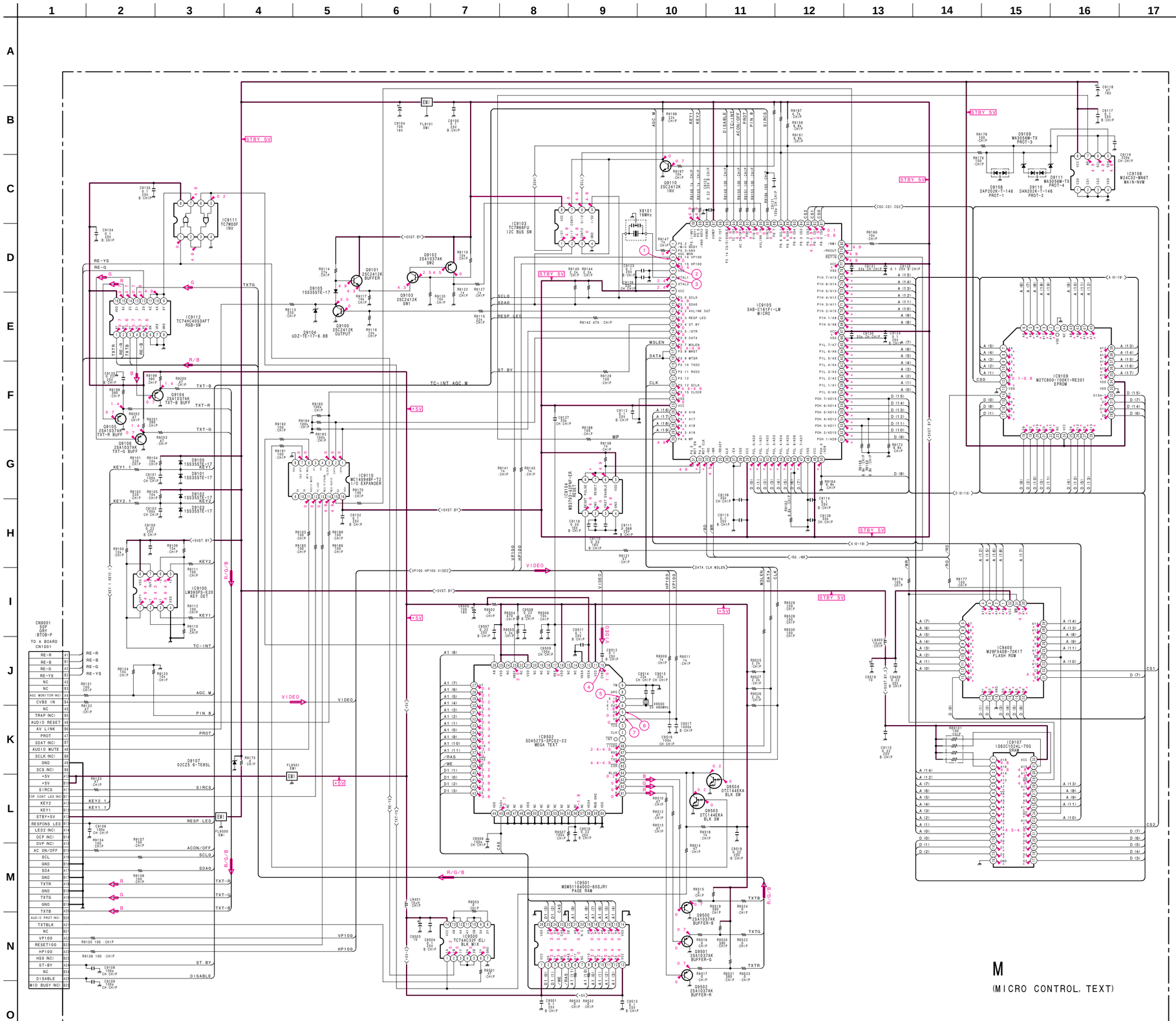




Schematic diagrams
CB CG CR
← ZB ZG ZR boards

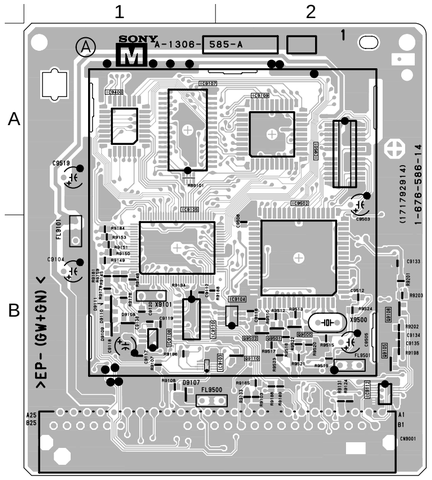
Schematic diagram
M board →

M [MICRO CONTROL TEXT]

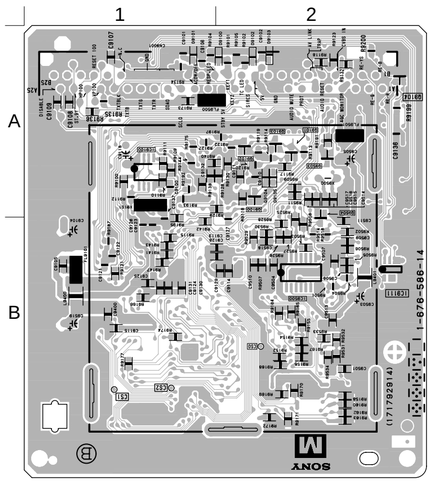


– 132 –

– M BOARD – (Component Side)



(Conductor Side)



• M BOARD SEMICONDUCTOR LOCATION

IC			TRANSISTOR			DIODE		
	(Component Side)	(Conductor Side)		(Component Side)	(Conductor Side) *		(Component Side)	(Conductor Side) *
IC9100		A-1	Q9100		A-2 ①	D9100		A-2 ③
IC9103	B-1		Q9101		A-2 ①	D9101		A-1 ③
IC9104	B-2		Q9102		A-2 ①	D9102		A-2 ③
IC9105	B-1		Q9103		A-2 ①	D9103		A-2 ③
IC9107	A-1		Q9104		A-2 ①	D9104		A-2 ③
IC9108	B-1		Q9105	B-2	②	D9105		A-2 ③
IC9109	A-2		Q9106	B-2	②	D9107	B-1	⑤
IC9110	B-1		Q9110	B-2	②	D9108	B-1	⑨
IC9111		B-2	Q9500	B-2	②	D9109	B-1	⑤
IC9112	B-2		Q9501	B-2	②	D9110	B-1	⑨
IC9400	A-1		Q9502	B-2	②	D9111	B-1	⑤
IC9500		B-2	Q9503		A-2 ①			
IC9501	A-2		Q9504		A-2 ①			
IC9502	B-2							

CRYSTAL		
	(Component Side)	(Conductor Side)
X9101	B-1	
X9500	B-2	

*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

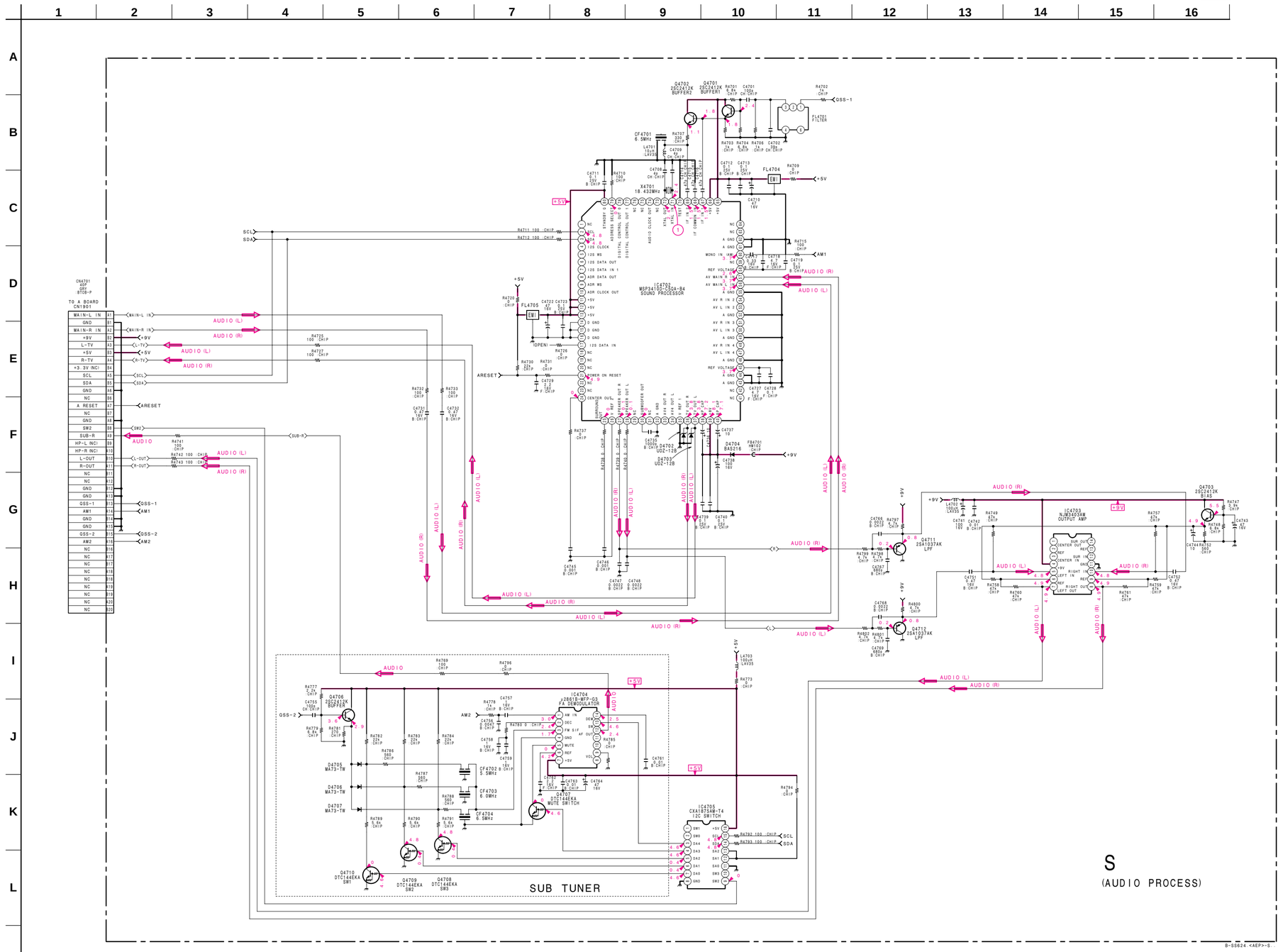
• M BOARD WAVEFORMS

① 5.1 Vp-p (V)	② 5.1 Vp-p (H)	③ 1.0 Vp-p (16 MHz)	④ PAL/NTSC 2.1 Vp-p (H)
④ SECAM 2.3 Vp-p (H)	⑤ 1.5 Vp-p (20.48 MHz)	⑥ 5.1 Vp-p (H)	⑦ 5.1 Vp-p (V)

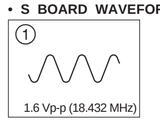
– 133 –

– 134 –

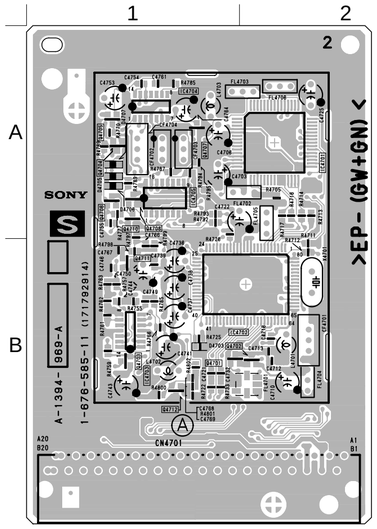
S [AUDIO PROCESS]



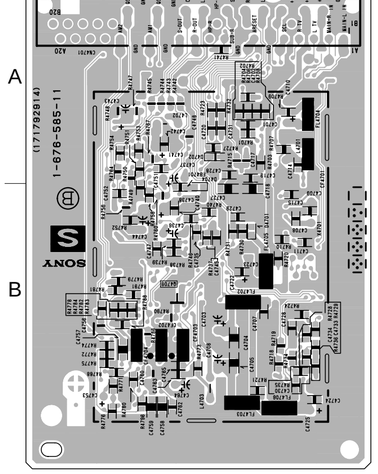
• S BOARD WAVEFORM



– S BOARD – (Component Side)



(Conductor Side)

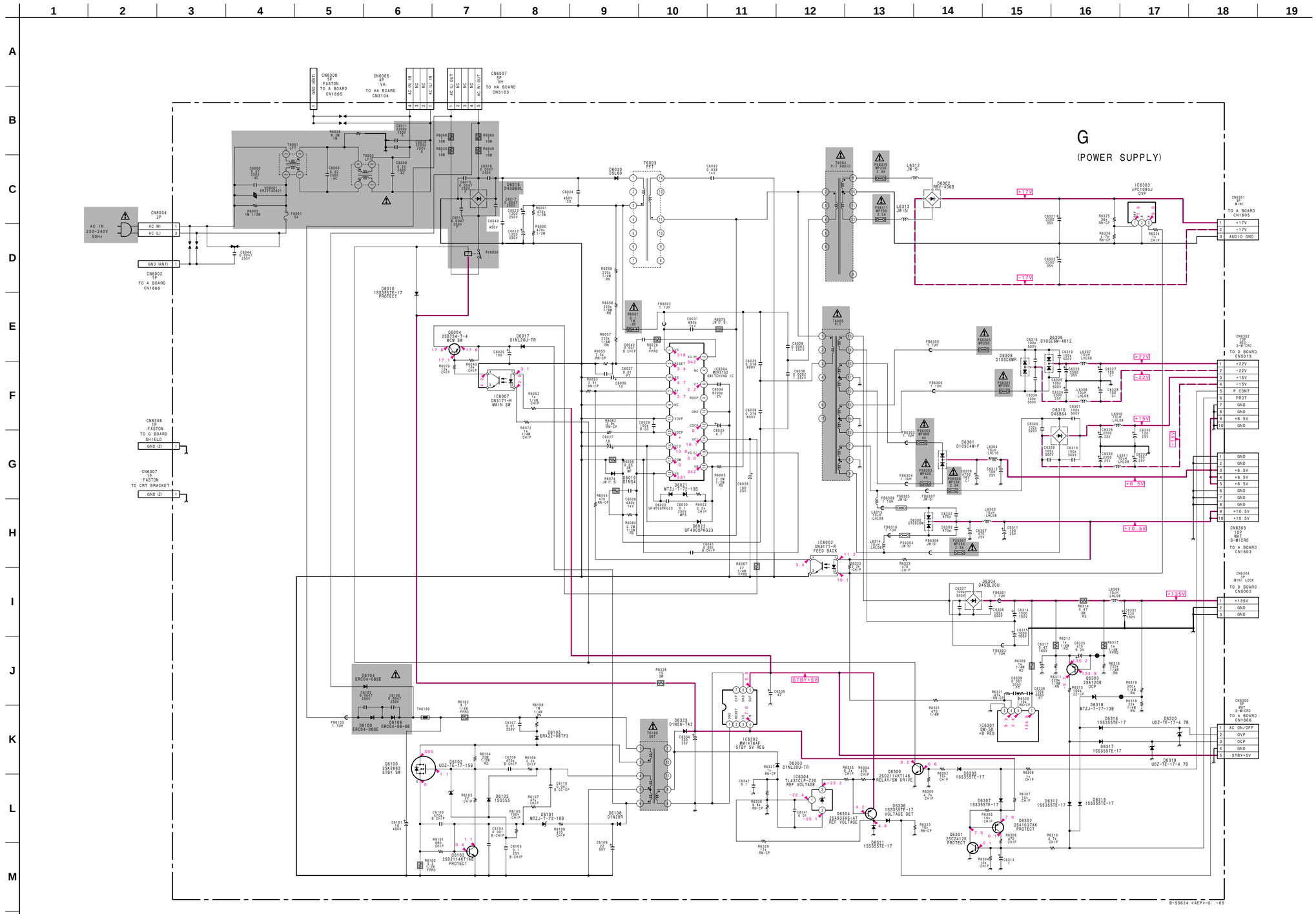


• S BOARD SEMICONDUCTOR LOCATION

IC			DIODE			
	(Component Side)	(Conductor Side)		(Component Side)	(Conductor Side)	✻
IC4702	B-1		D4702		A-1	③
IC4703	B-1		D4703	B-1		③
IC4704	A-1		D4704		B-1	③
IC4705	A-1		D4705	A-1		③
TRANSISTOR			D4706	A-1		③
	(Component Side)	(Conductor Side)	✻	D4707	A-1		③
Q4701	B-1		②	**CRYSTAL**			
Q4702	B-2		②		(Component Side)	(Conductor Side)	
Q4703	B-1		②	X4701	B-2		
Q4706	A-1		②				
Q4707	A-1		②				
Q4708	A-1		②				
Q4709		B-1	①				
Q4710	A-1		②				
Q4711	B-1		②				
Q4712	B-1		②				

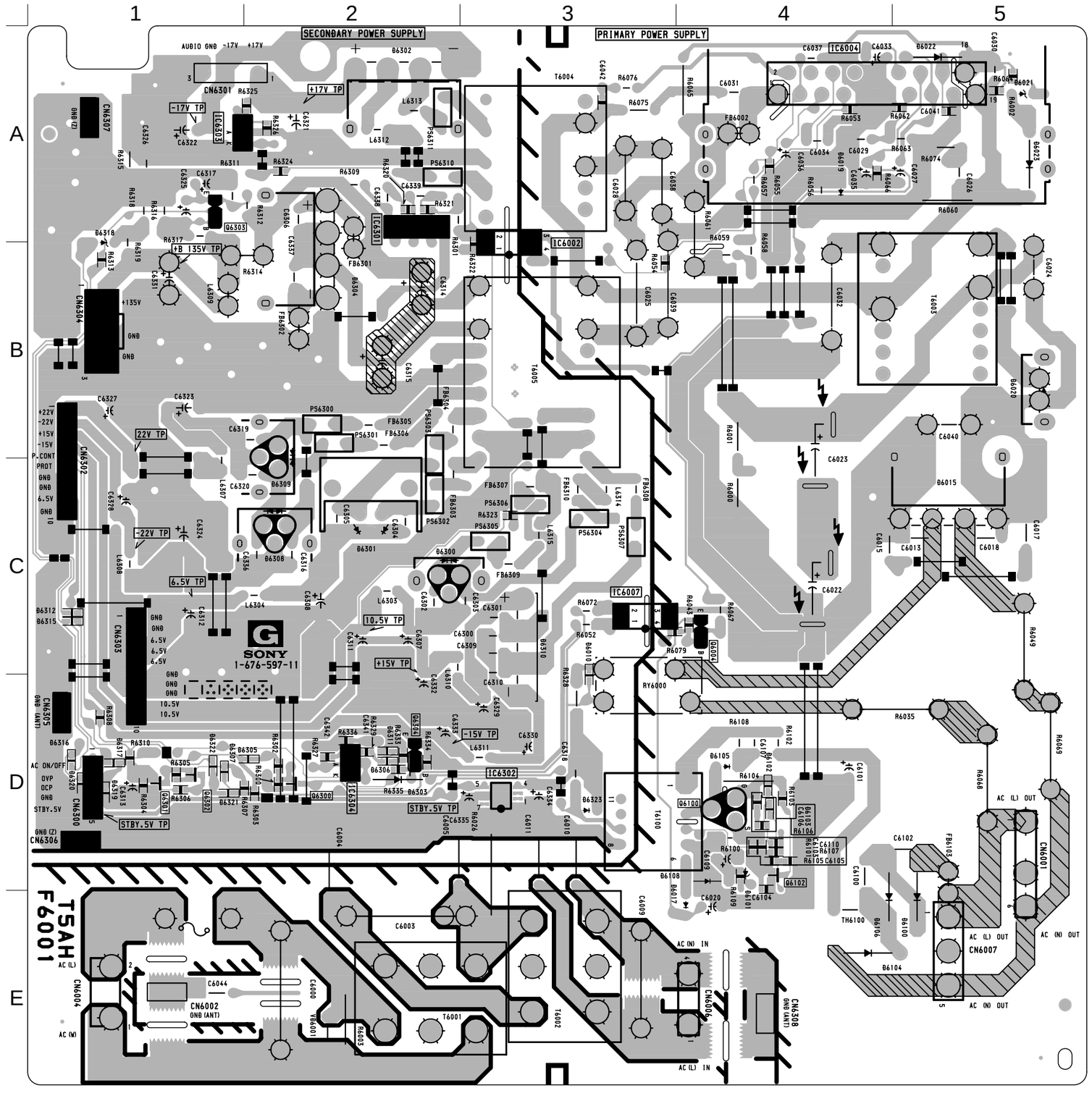
✻: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)

(16) Schematic Diagram of G Board



G [POWER SUPPLY]

– G BOARD –



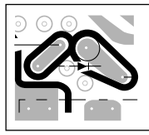
• G BOARD SEMICONDUCTOR LOCATION

IC		
IC6002	B-3	
IC6004	A-4	
IC6007	C-3	
IC6301	A-2	
IC6302	D-3	
IC6303	A-1	
IC6304	D-2	

TRANSISTOR		
		✱
Q6004	C-4	–
Q6100	D-4	–
Q6102	D-4	①
Q6300	D-2	①
Q6301	D-1	①
Q6302	D-1	①
Q6303	A-1	–
Q6304	D-2	–

DIODE		
		✱
D6010	C-3	③
D6015	C-5	–
D6017	E-4	–
D6019	A-4	–
D6020	B-5	–
D6021	A-5	–
D6022	A-5	–
D6023	A-5	–
D6100	E-5	–
D6101	D-4	–
D6102	D-4	③
D6103	D-4	③
D6104	E-4	–
D6105	D-4	–
D6106	E-4	–
D6108	D-4	–
D6300	C-2	–
D6301	C-2	–
D6302	A-2	–
D6303	D-2	–
D6304	B-2	–
D6305	D-2	③
D6306	D-2	③
D6307	D-1	③
D6308	C-2	–
D6309	C-2	–
D6310	C-3	–
D6311	D-2	③
D6312	C-1	③
D6315	C-1	③
D6316	D-1	③
D6317	D-1	③
D6318	A—1	–
D6319	D-1	③
D6320	D-1	③
D6323	D-3	–

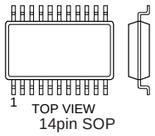
✱: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 79)



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

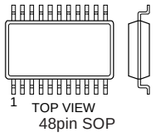
7-5. SEMICONDUCTORS

CA0007AM
LM339NS
NJM3403AM
NJM3403AM(TE2)
TC74AC32F
TC74AC32F(EL)
TLC2932IPWR
TLC2933IPWR-12
U2861B-MFP-G3
µPC339G2-E2



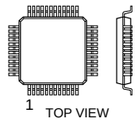
14pin SOP

CD0031AM



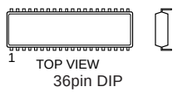
48pin SOP

CM0017AF



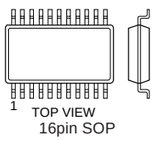
100pin QFP

CXA1815S



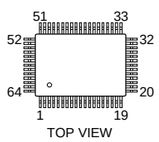
36pin DIP

CXA1875AM-T4
MC14094BF
MC14094BFEL
TC74HC4053AFT(EL)

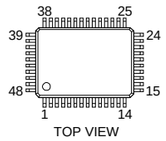


16pin SOP

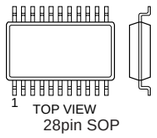
CXA2100AQ-TL
CXA2149AQ-TL
CXP86448-634Q



CXA2123BQ-T6

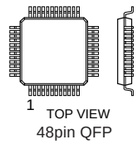


CXD2057M-T6



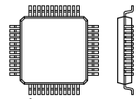
28pin SOP

CXD2064Q-T6
CXD2309Q-T6



48pin QFP

CXD2090Q
TMC57127-MMP-54



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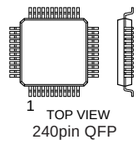

240pin QFP

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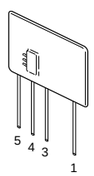

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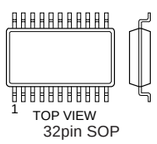

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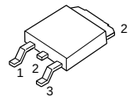

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NJM4558M-TE2
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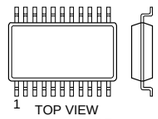

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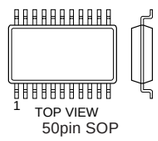

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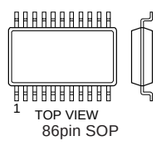

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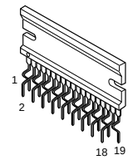

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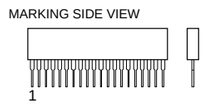

8pin SIP

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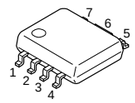

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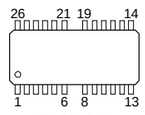

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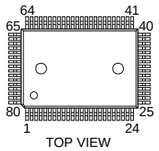

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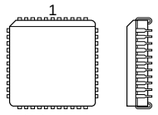

44pin QFJ

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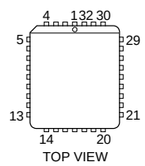

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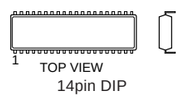

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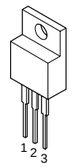

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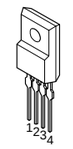

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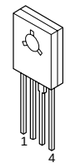

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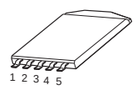

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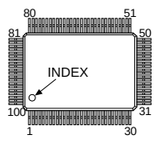

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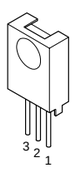

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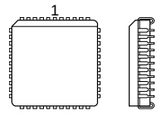

68pin QFJ

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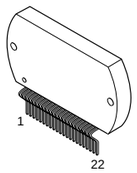

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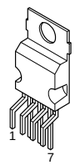

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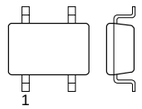

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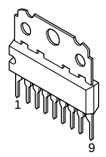

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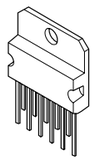

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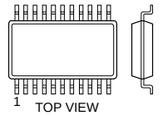

24pin SOP

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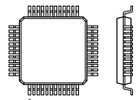

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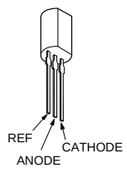

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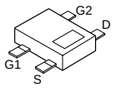

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2SA1037AK-T146-R
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2SA1162-G
2SC1623-L5L6
2SC2412K-T-146-QR
2SC2412K-T-146-R
2SC2412K-T-146-S
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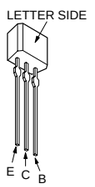

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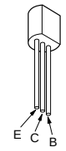

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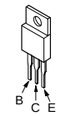

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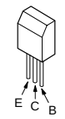

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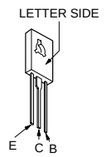

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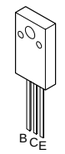

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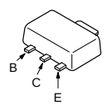

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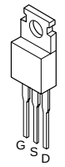

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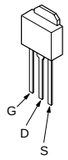

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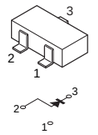

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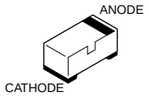

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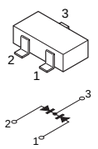

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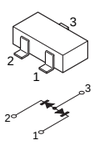

DTZ-TT11-6.8B
MA111-TX
MA113-(TX)
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UDZ-TE-17-8.2B
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UDZSTE-173.9B
UDZSTE-174.7B
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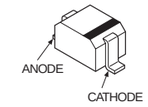

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ERA22-08TP3
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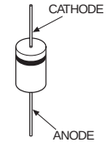

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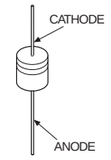
MTZJ-13B
MTZJ-7.5B
MTZJ-T-72-13B
MTZJ-T-72-18B
MTZJ-T-77-13
MTZJ-T-77-13B
MTZJ-T-77-15
MTZJ-T-77-24
MTZJ-T-77-36B
MTZJ-T-77-5.1B
MTZJ-T-77-7.5B
RD13ES-B2
RD5.1ESB2
1SS133T-77



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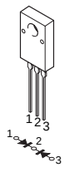
D10SC6M-4012



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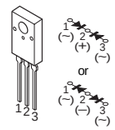

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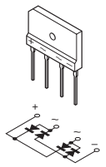
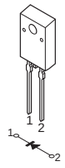
D4SBS4
D4SBS4-F
RBA-406B
RBV-406B



D5L60



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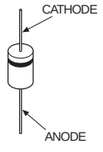
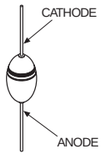


ERC38-06



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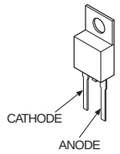

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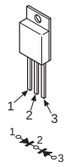
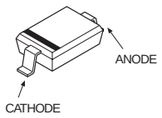
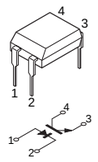


MA73-TW
MA73-TX



ON3171-R



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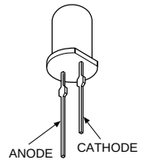
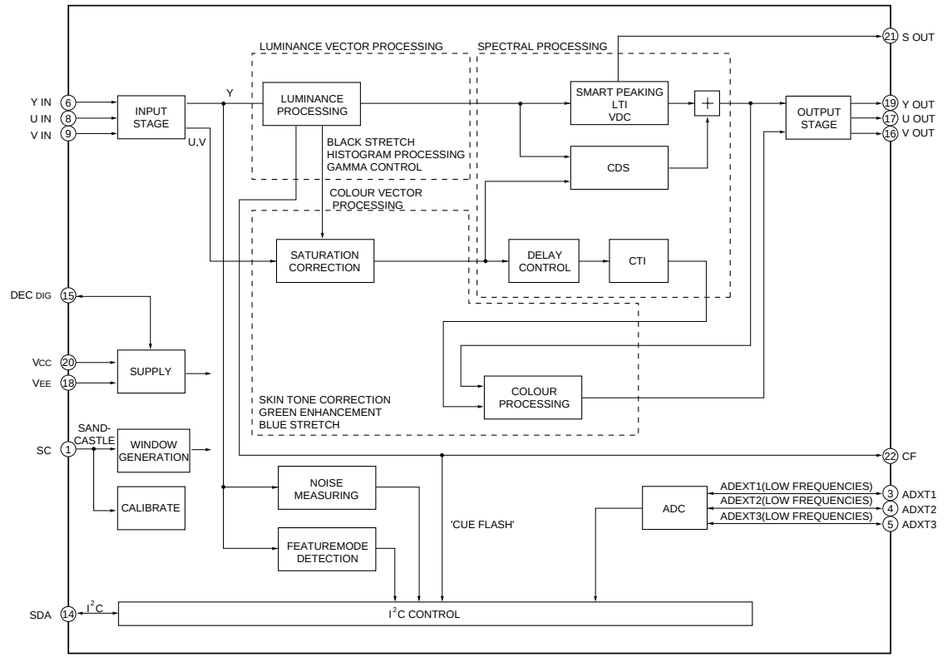
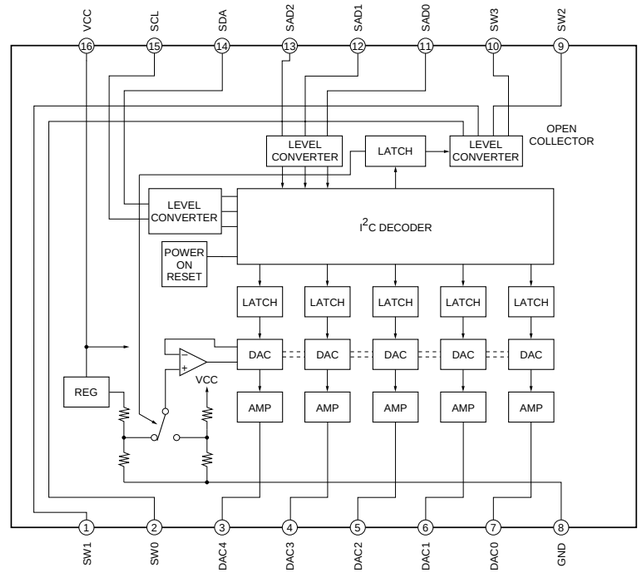


7-6. IC BLOCK DIAGRAMS

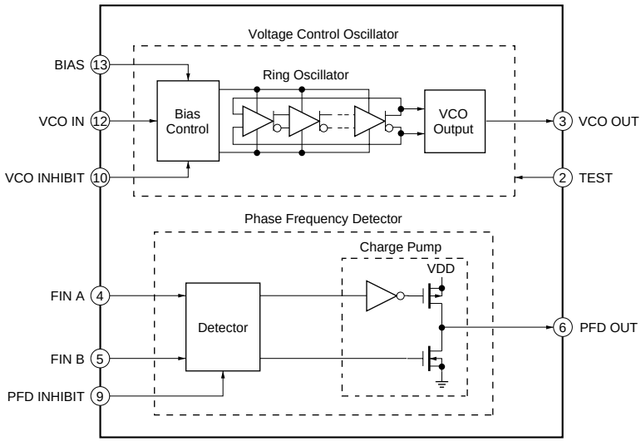
- **J (2/2) BOARD IC8601**
  TDA9178T



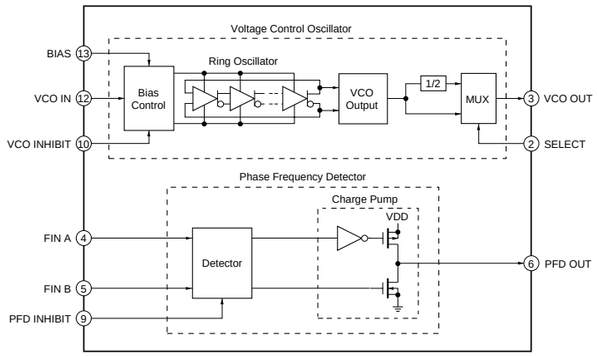
- **A BOARD IC1401**
- **B3 (2/5) BOARD IC604**
- **S BOARD IC4705**
  CXA1875AM



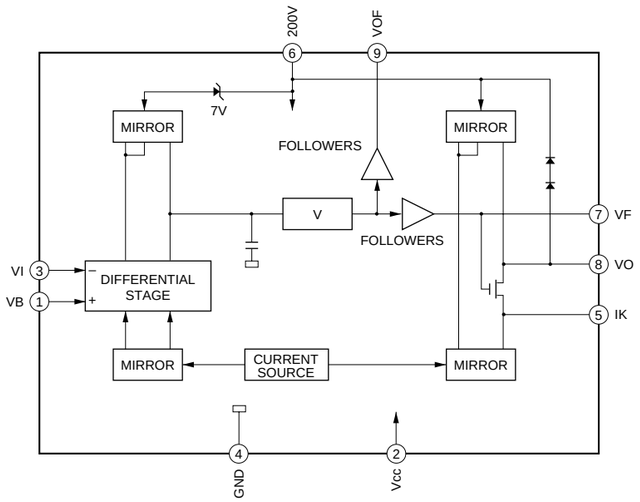
- **B3 (1/5) BOARD IC504**
  TLC2933IPWR



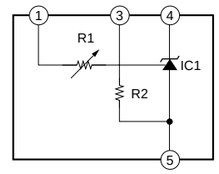
- **B3 (2/5) BOARD IC603**
- **B3 (5/5) BOARD IC313**
  TLC2932IPWR



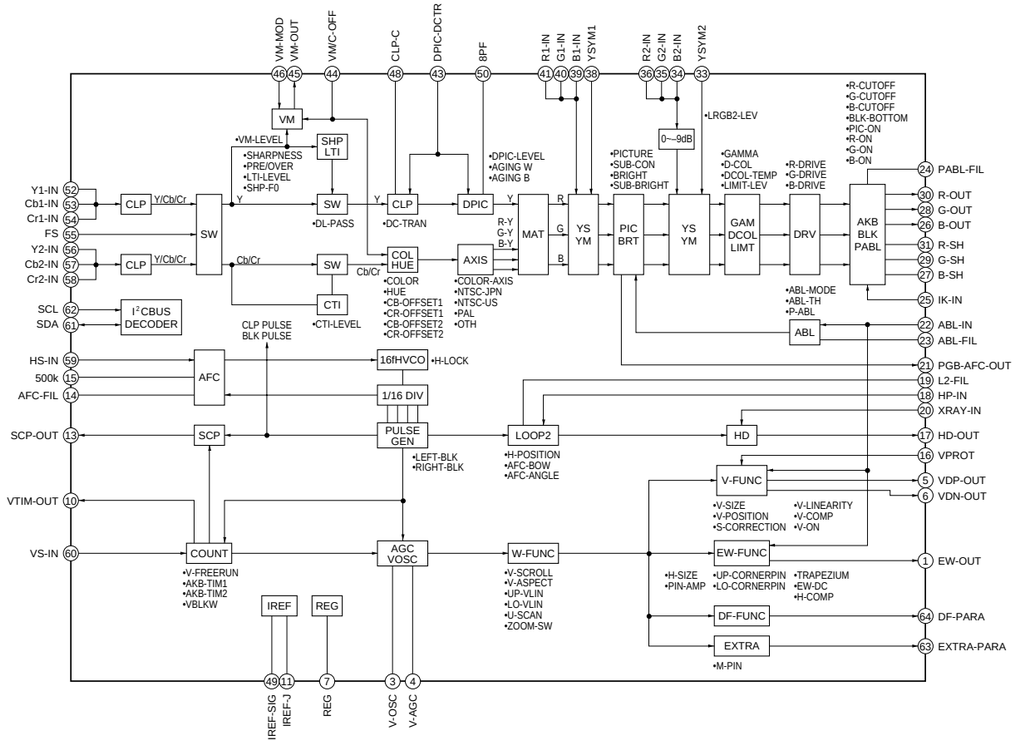
- **CR BOARD IC7101**
- **CG BOARD IC7201**
- **DB BOARD IC7301**
  TDA6111Q



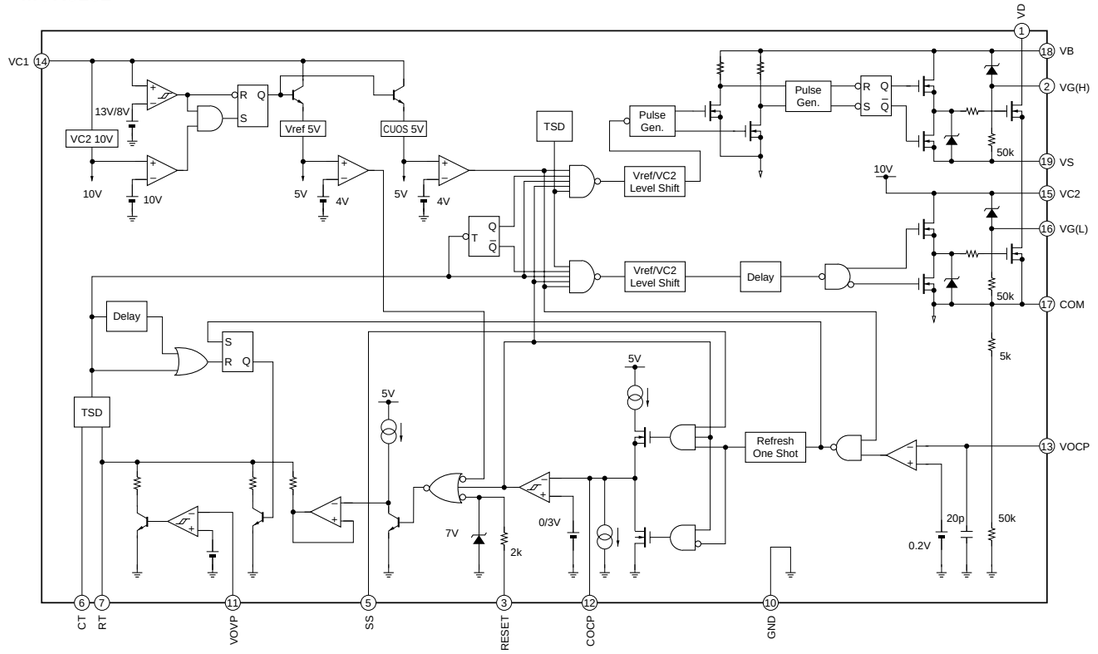
- **G BOARD IC6301**
  DM-58



- **E BOARD IC4301**
  CXA2100AQ



- **G BOARD IC6004**
  MCR5152



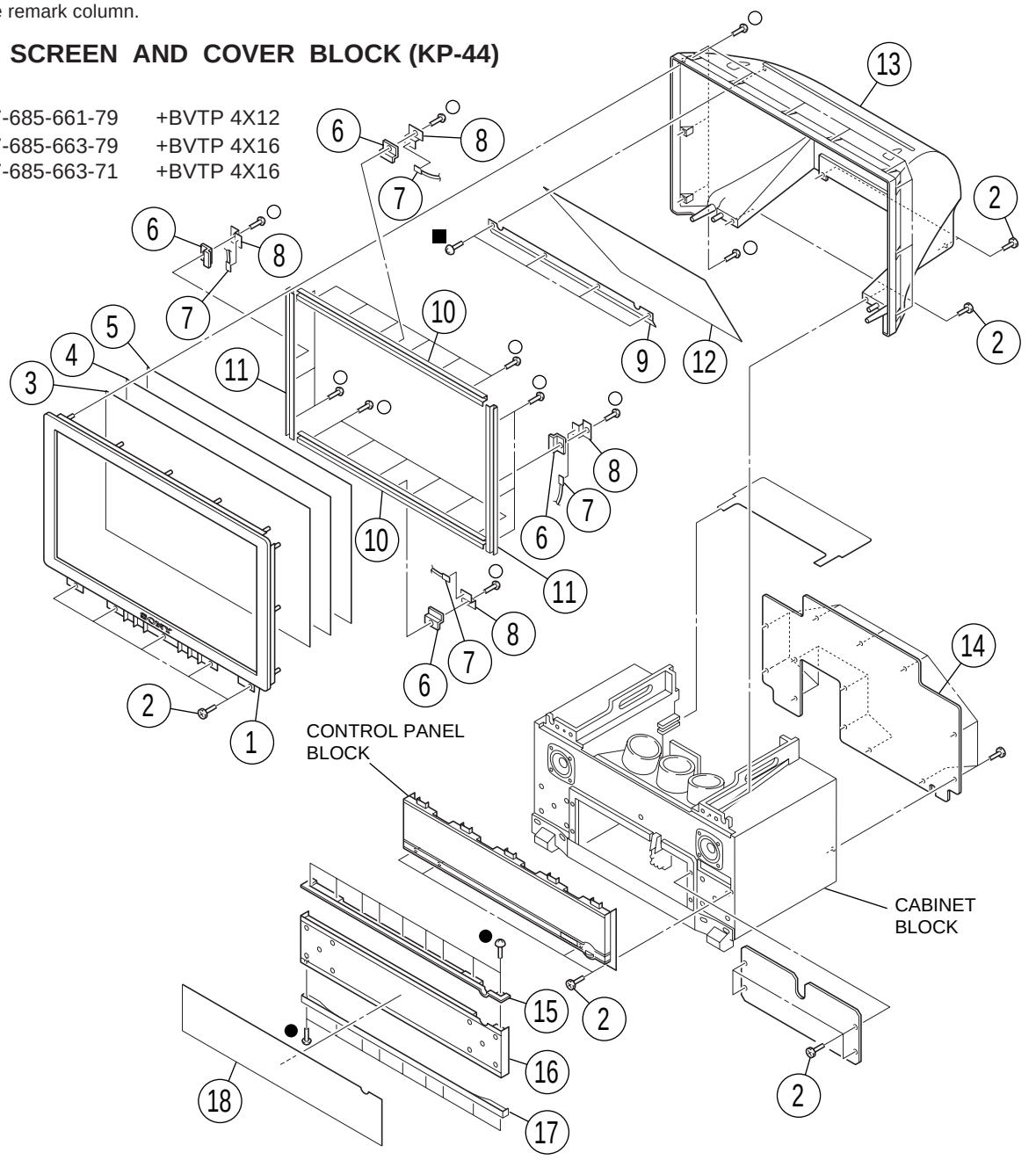
SECTION 8
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

8-1. SCREEN AND COVER BLOCK (KP-44)

■ : 7-685-661-79 +BVTP 4X12
○ : 7-685-663-79 +BVTP 4X16
● : 7-685-663-71 +BVTP 4X16

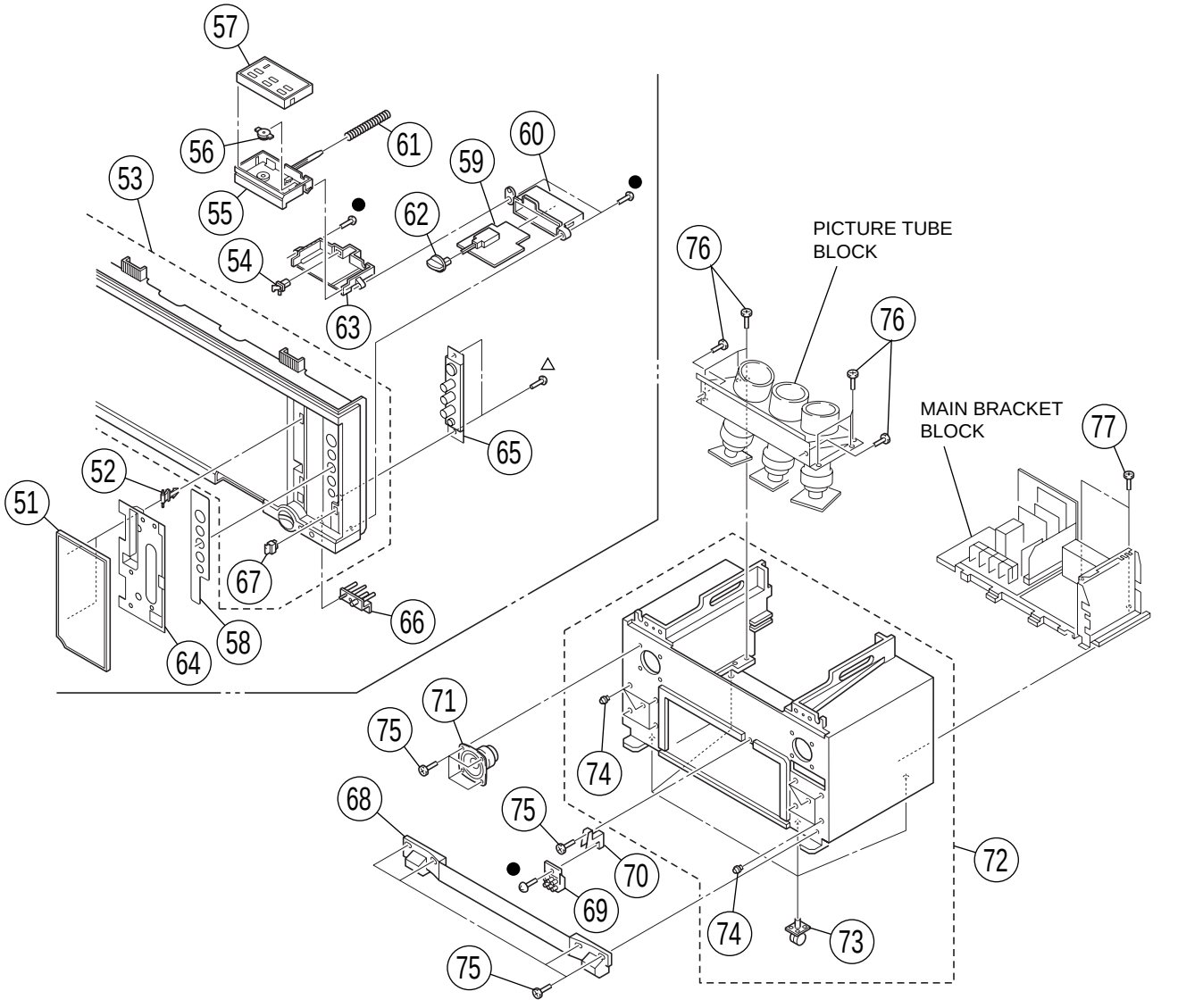


REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4038-781-1	BEZEL (44) ASSY	
2	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
3	4-081-957-11	SCREEN (44W), DIFFUSION	
4	4-081-955-11	PLATE (44WL), DIFFUSION	
5	4-081-956-11	PLATE (44WF), DIFFUSION	
6	*4-205-155-01	COVER, SENSOR	
7	1-528-864-11	BATTERY, SOLER	
8	*4-066-132-01	HOLDER, SENSOR	
9	*4-082-036-01	HOLDER (44), MIRROR	
10	*4-076-698-01	HOLDER, SCREEN	
11	*4-076-698-41	HOLDER, SCREEN	
12	4-082-042-01	MIRROR (44)	
13	*4-082-319-01	COVER (44), MIRROR (PAINTED)	
14	*4-082-046-01	BOARD (44), REAR	
15	4-082-317-01	HOLDER (U), GLASS (44) (PAINTED)	
16	4-082-316-01	COVER (44), FRONT (PAINTED)	
17	4-082-318-01	HOLDER (L), GLASS (44) (PAINTED)	
18	4-082-056-11	GLASS, ORNAMENTAL	

8-2. CONTROL PANEL AND CABINET BLOCK (KP-44)

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

△ : 7-685-648-79 +BVTP 3X12
● : 7-685-663-71 +BVTP 4X16

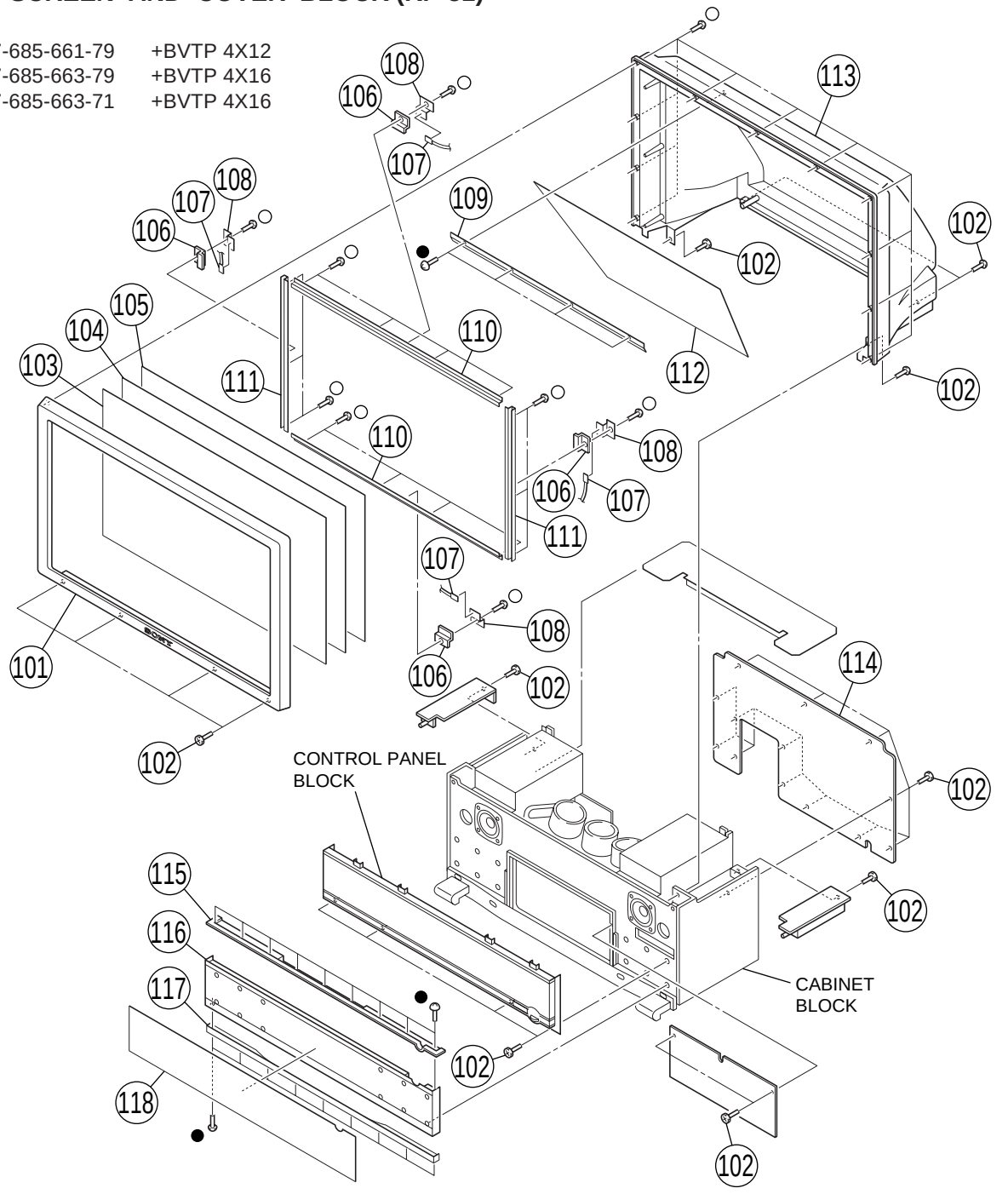


REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4038-780-1	PANEL ASSY, DOOR	
52	4-045-250-31	DAMPER	
53	X-4038-782-1	PANEL (44) ASSY, CONTROL	67
54	4-074-464-01	CATCHER, PUSH	
55	*4-082-242-01	TRAY (PAINTED)	
56	4-205-682-01	DAMPER	
57	1-476-692-11	PANEL BLOCK, CONTROL	
58	4-083-469-01	LABEL, FRONT TERMINAL	
59	*A-1372-922-A	HA BOARD, COMPLETE	
60	*4-081-933-01	BRACKET, HA	
61	4-082-040-01	SPRING (T)	
62	4-083-097-01	BUTTON, POWER (PAINTED)	
63	*4-081-932-01	BRACKET, TRAY	
64	4-083-930-01	COVER, DOOR (PAINTED)	

REF.NO.	PART NO.	DESCRIPTION	REMARK
65	*A-1372-923-A	HB BOARD, COMPLETE	
66	4-081-608-01	GUIDE, LED	
67	4-072-192-01	CATCHER, PUSH	
68	4-082-315-01	SKIRT (44), FRONT (PAINTED)	
69	⚠1-223-925-71	RESISTOR ASSY (HIGH-VOLTAGE) (FOCUS PACK)	
70	*4-054-825-01	BRACKET, FOCUS PACK	
71	1-544-880-11	SPEAKER (13 CM)	
72	*X-4038-777-1	CABINET (44) ASSY, BOTTOM	73,74
73	4-075-244-01	CASTER (30 DIA.)	
74	4-063-421-02	LATCK (K)	
75	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
76	4-052-894-01	SCREW (4X20), HEAD TAPPING	
77	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	

8-3. SCREEN AND COVER BLOCK (KP-51)

■ : 7-685-661-79 +BVTP 4X12
○ : 7-685-663-79 +BVTP 4X16
● : 7-685-663-71 +BVTP 4X16

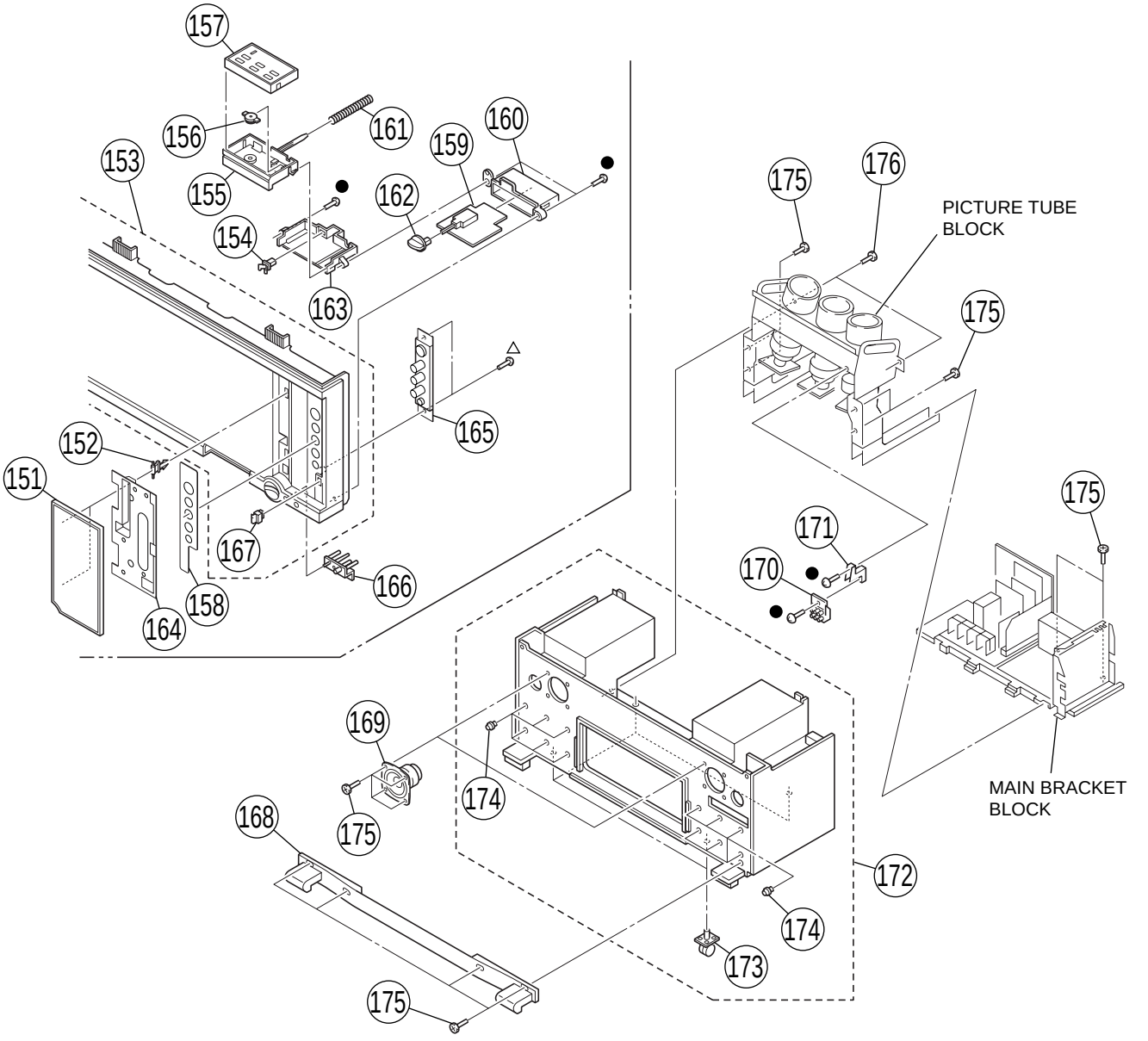


REF.NO.	PART NO.	DESCRIPTION	REMARK
101	X-4038-697-1	BEZEL (51), ASSY	
102	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
103	4-076-575-11	SCREEN (51W), CONTRAST	
104	4-076-573-11	PLATE (51WL), DIFFUSION	
105	4-076-574-11	PLATE (51WF), DIFFUSION	
106	*4-205-155-01	COVER, SENSOR	
107	1-528-864-11	BATTERY, SOLER	
108	*4-066-132-01	HOLDER, SENSOR	
109	*4-075-234-01	HOLDER (TOP), MIRROR	
110	*4-075-269-02	HOLDER (53) L, SCREEN	
111	*4-076-698-31	HOLDER, SCREEN	
112	4-075-872-02	MIRROR (51)	
113	*4-082-053-01	COVER (51) (PAINTED), MIRROR	
114	*4-082-050-01	BOARD (51), REAR	
115	4-082-240-01	HOLDER (U), GLASS (51) (PAINTED)	
116	4-082-239-01	COVER (51) (PAINTED), FRONT	
117	4-082-241-01	HOLHDER (L), GRASS (51) (PAINTE)	
118	4-082-056-01	GLASS, ORNAMENTAL	

8-4. CONTROL PANEL AND CABINET BLOCK (KP-51)

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

△ : 7-685-648-79 +BTP 3X12
● : 7-685-663-71 +BVTP 4X16

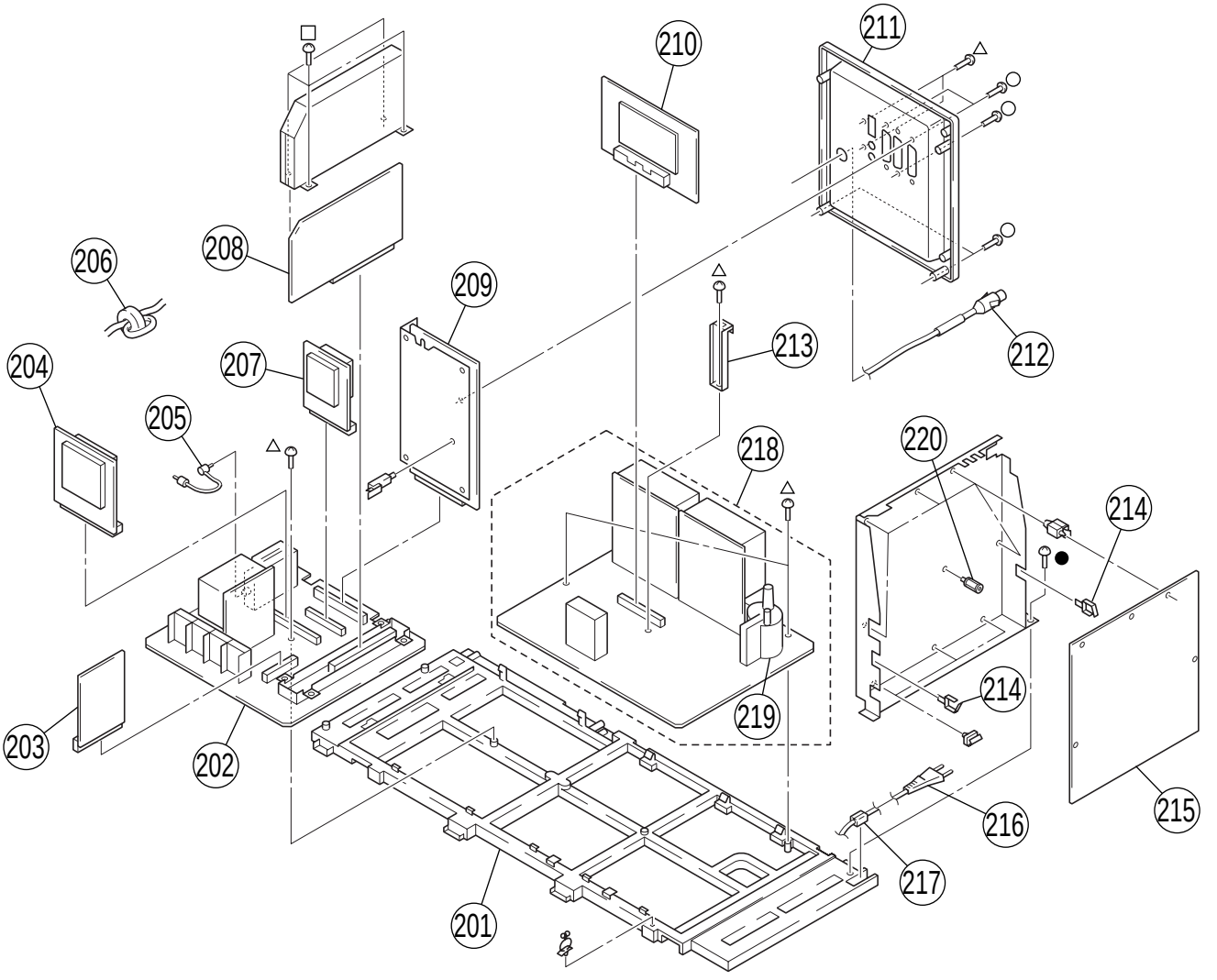


REF.NO.	PART NO.	DESCRIPTION	REMARK
151	X-4038-780-1	PANEL ASSY, DOOR	
152	4-054-250-31	DAMPER	
153	X-4038-779-1	PANEL (51) ASSY, CONTROL	167
154	4-074-464-01	CATCHER, PUSH	
155	*4-082-242-01	TRAY (PAINTED)	
156	4-205-682-01	DAMPER	
157	1-476-692-11	PANEL BLOCK, CONTROL	
158	4-083-469-01	LABEL, FRONT TERMINAL	
159	*A-1372-922-A	HA BOARD, COMPLETE	
160	*4-081-933-01	BRACKET, HA	
161	4-082-040-01	SPRING (T)	
162	4-083-097-01	BUTTON, POWER (PAINTED)	
163	*4-081-932-01	BRACKET, TRAY	
164	4-083-930-01	COVER, DOOR (PAINTED)	
165	*A-1372-923-A	HB BOARD, COMPLETE	
166	4-081-608-01	GUIDE, LED	
167	4-072-192-01	CATCHER, PUSH	
168	*4-082-238-01	SKIRT (51) (PAINTED), FRONT	
169	1-544-880-11	SPEAKER (13 CM)	
170	⚠1-223-925-71	RESISTOR ASSY (HIGF-VOLTAGE) (FOCUS PACK)	
171	*4-054-825-01	BRACKET, FOCUS PACK	
172	*X-4038-778-1	CABINET (51) ASSY, BOTTOM	173,174
173	4-075-244-01	CASTER (30 DIA.)	
174	4-063-421-02	LATCH (K)	
175	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
176	4-052-894-01	SCREW (4X20), HEAD TAPPING	

8-5. MAIN BRACKET BLOCK

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

△ : 7-685-648-79 +BVTP 3X12
● : 7-685-663-71 +BVTP 4X16
○ : 7-685-663-79 +BVTP 4X16
□ : 7-685-872-09 +BVTT 3X8

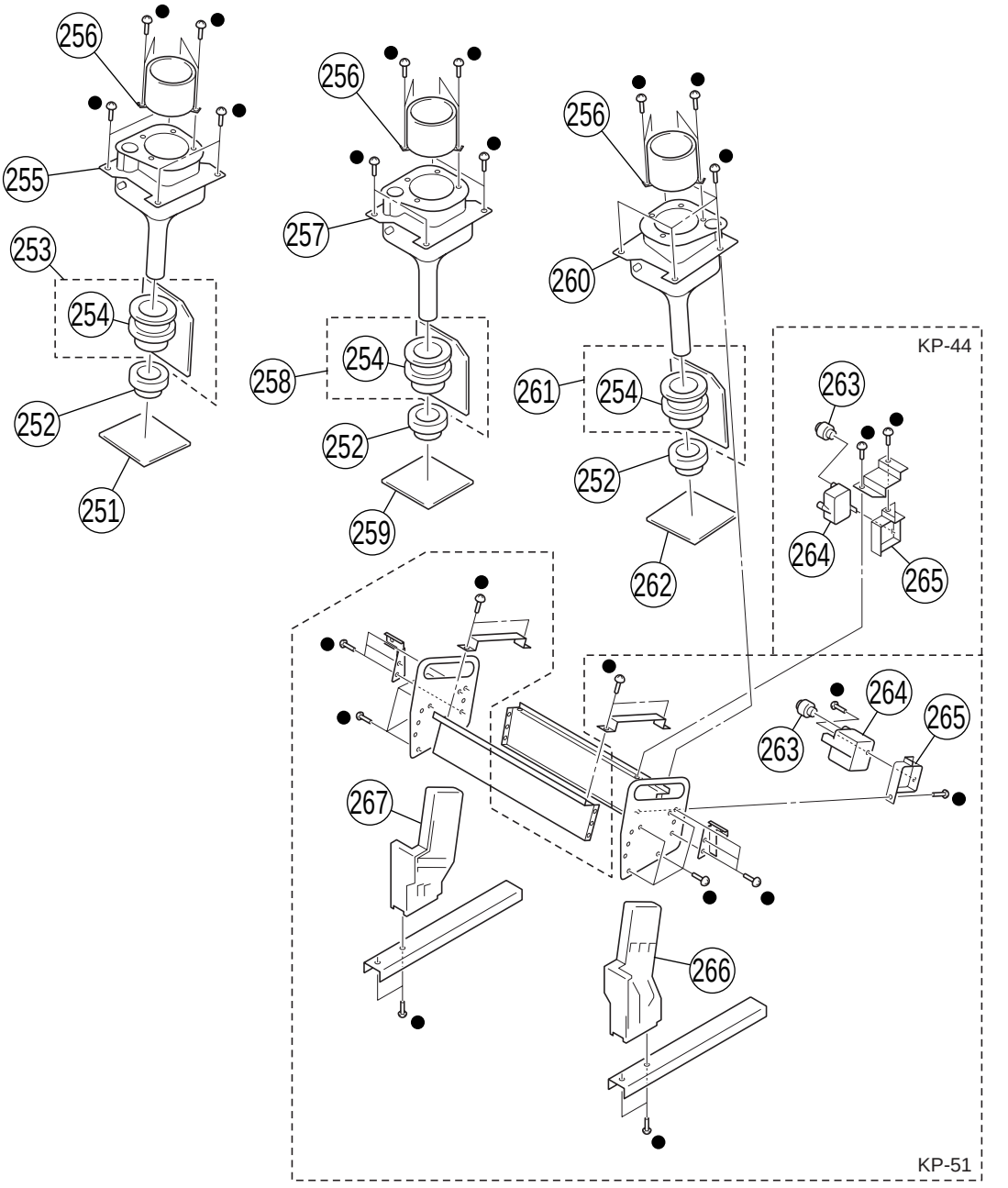


REF.NO.	PART NO.	DESCRIPTION	REMARK
201	*4-062-537-01	BRACKET, MAIN	
202	*A-1299-119-A	A BOARD, COMPLETE	
203	*A-1348-063-A	E BOARD, COMPLETE	
204	*A-1306-599-A	M BOARD, COMPLETE	
205	*1-555-110-00	CABLE, PIN	
206	1-543-982-11	CORE, FERRITE	
207	*A-1394-969-A	S BOARD, COMPLETE	
208	*A-1620-145-A	B3 BOARD, COMPLETE	
209	*A-1395-023-A	J BOARD, COMPLETE	
210	*A-1299-413-A	AP BOARD, COMPLETE	
211	4-075-243-03	BOARD, TERMINAL	
212	1-790-082-11	CABLE, RF	
213	*3-657-516-11	SUPPORT, PC BOARD	
214	*4-316-015-00	HOLDER, WIRE	
215	*A-1316-512-A	G BOARD, COMPLETE	
216	⚠1-765-286-11	CORD, POWER (44PS2/51PS2)	
216	⚠1-776-860-11	POWER CORD, FILTER (UK) (44PS2U)	
217	4-022-115-00	HOLDER, AC CORD	
218	*A-1348-062-A	D BOARD, COMPLETE	219
219	⚠1-453-335-11	TRANSFORMER ASSY, FLYBACK (NX-4010//M3P4)	
220	*4-046-677-11	HOLDER (B), PWB	

8-6. PICTURE TUBE BLOCK

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

● : 7-685-663-71 +BVTP 4X16



REF.NO.	PART NO.	DESCRIPTION	REMARK
251	* A-1332-181-A	CR BOARD, COMPLETE	
252	⚠1-452-790-41	NECK ASSY (NA-295)	
253	* A-1391-132-A	ZR BOARD, COMPLETE	254
254	⚠1-451-465-21	DEFLECTION YOKE	
255	⚠8-733-571-35	PICTURE TUBE 07MXC2 (R) (NEW GUN) (KP44PS2/KP44PS2U)	
255	⚠8-733-572-35	PICTURE TUBE 07MXC3 (R) (NEW GUN) (KP51PS2)	
256	4-056-258-11	LENS (DELTA 78)	
257	⚠A-1501-273-A	SEAL (G) ASSY, MECHANICAL	
258	* A-1391-133-A	ZG BOARD, COMPLETE	254
259	* A-1332-182-A	CG BOARD, COMPLETE	
260	⚠8-733-574-15	PICTURE TUBE 07MAC2 (B) (C/D CPL) (KP44PS2/KP44PS2U)	
260	⚠8-733-575-15	PICTURE TUBE 07MAC3 (B) (C/D CPL) (KP51PS2)	
261	* A-1391-134-A	ZB BOARD, COMPLETE	254
262	* A-1332-183-A	CB BOARD, COMPLETE	
263	4-373-137-01	CAP (Z), RUBBER	
264	⚠8-598-955-13	BLOCK ASSY, HIGH-VOLTAGE	HVB-1030
265	* 4-063-176-01	HOLHDER, HVR	
266	* 4-066-135-01	STAY (R), SIDE (51PS2)	
267	* 4-066-134-01	STAY (L), SIDE (51PS2)	

SECTION 9
ELECTRICAL PARTS LIST

HA HB

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS
  PF : μμF
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	* A-1372-922-A	HA BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C3101	1-126-157-11	ELECT	10μF	20%	16V
C3102	1-164-346-11	CERAMIC CHIP	1μF		16V
		<CONNECTOR>			
CN3101	* 1-564-508-11	PLUG, CONNECTOR 5P			
CN3102	* 1-764-333-11	PLUG, CONNECTOR 10P			
CN3103	* 1-695-292-11	PIN, CONNECTOR (POWER)			
CN3104	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
		<DIODE>			
D3102	8-719-992-06	DIODE SLA-580LT3F (STANDBY)			
		<IC>			
IC3101	8-742-200-20	HYB IC SBX3081-11			
		<TRANSISTOR>			
Q3101	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q3102	8-729-027-23	TRANSISTOR DTA114EKA-T146			
Q3103	8-729-106-68	TRANSISTOR 2SD1615A-GP			
		<RESISTOR>			
R3101	1-216-041-00	RES-CHIP	470	5%	1/10W
R3103	1-216-295-91	SHORT	0		
R3104	1-216-295-91	SHORT	0		
R3105	1-216-037-00	RES-CHIP	330	5%	1/10W
R3106	1-216-295-91	SHORT	0		
R3107	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3108	1-216-073-91	RES-CHIP	10K	5%	1/10W
R3109	1-216-049-11	RES-CHIP	1K	5%	1/10W
R3110	1-249-393-11	CARBON	10	5%	1/4W
		<SWITCH>			
S3101	⚠1-571-433-31	SWITCH, PUSH (AC POWER) (POWER)			
	* A-1372-923-A	HB BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C3503	1-163-037-11	CERAMIC CHIP	0.022μF	10%	50V
C3504	1-163-037-11	CERAMIC CHIP	0.022μF	10%	50V
		<CONNECTOR>			
CN3501	* 1-564-526-11	PLUG, CONNECTOR 11P			
CN3502	* 1-564-520-11	PLUG, CONNECTOR 5P			
		<DIODE>			
D3501	8-719-914-43	DIODE DAN202K			
D3502	8-719-914-43	DIODE DAN202K			
		<JACK>			
J3501	1-568-807-21	TERMINAL BLOCK, (S) 4P (AV 4)			
J3502	1-691-293-11	JACK (HEAD PHONE)			
		<COIL>			
L3501	1-414-189-31	INDUCTOR	100μH		
L3502	1-414-189-31	INDUCTOR	100μH		
		<RESISTOR>			
R3501	1-216-025-00	RES-CHIP	100	5%	1/10W
R3502	1-216-025-00	RES-CHIP	100	5%	1/10W
R3503	1-216-033-00	RES-CHIP	220	5%	1/10W
R3504	1-216-033-00	RES-CHIP	220	5%	1/10W
R3505	1-216-033-00	RES-CHIP	220	5%	1/10W
R3506	1-216-033-00	RES-CHIP	220	5%	1/10W

ZR ZG

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	* A-1391-132-A	ZR BOARD, COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			(Q7408, Q7409)
		<CAPACITOR>			
C7401	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C7402	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C7403	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C7404	1-104-660-91	ELECT	47µF	20%	16V
C7407	1-104-989-91	MYLAR	0.0022µF	10%	200V
C7408	1-104-989-91	MYLAR	0.0022µF	10%	200V
C7409	1-107-667-11	ELECT	2.2µF	20%	160V
C7410	1-130-471-00	MYLAR	0.001µF	5%	50V
C7411	1-130-471-00	MYLAR	0.001µF	5%	50V
C7412	1-106-363-00	MYLAR	0.0068µF	99%	200V
C7413	1-126-968-11	ELECT	100µF	20%	50V
C7414	1-126-968-11	ELECT	100µF	20%	50V
C7415	1-107-645-11	ELECT	22µF	20%	200V
C7416	1-161-830-00	CERAMIC	0.0047µF		500V
		<CONNECTOR>			
CN7401	* 1-564-509-11	PLUG, CONNECTOR 6P			
CN7403	* 1-564-518-11	PLUG, CONNECTOR 3P			
CN7404	* 1-564-507-11	PLUG, CONNECTOR 4P			
CN7405	* 1-580-844-11	PIN, CONNECTOR (POWER)			
		<DIODE>			
D7403	8-719-921-86	DIODE MTZJ-13			
D7404	8-719-921-86	DIODE MTZJ-13			
		<DEFLECTION YOKE>			
DY7401	⚠ 1-451-465-21	DEFLECTION YOKE (R)			
		<COIL>			
L7401	1-412-911-11	FERRITE	0µH		
L7402	1-414-187-11	INDUCTOR	47µH		
		<TRANSISTOR>			
Q7401	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q7402	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q7403	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q7404	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q7405	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q7408	8-729-045-04	TRANSISTOR 2SC5511			
Q7409	8-729-045-05	TRANSISTOR 2SA2005			
Q7410	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		<RESISTOR>			
R7401	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R7402	1-208-802-11	METAL CHIP	6.8K	0.5%	1/10W
R7403	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R7404	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R7405	1-216-475-11	METAL OXIDE	120	5%	3W
R7406	1-216-033-00	RES-CHIP	220	5%	1/10W
R7407	1-249-385-11	CARBON	2.2	5%	1/4W
R7408	1-216-475-11	METAL OXIDE	120	5%	3W
R7409	1-216-001-00	RES-CHIP	10	5%	1/10W
R7410	1-216-001-00	RES-CHIP	10	5%	1/10W
R7411	1-249-414-11	CARBON	560	5%	1/4W
R7417	1-249-414-11	CARBON	560	5%	1/4W
R7419	1-249-415-11	CARBON	680	5%	1/4W
R7420	1-249-431-11	CARBON	15K	5%	1/4W
R7421	1-249-431-11	CARBON	15K	5%	1/4W
R7422	1-249-415-11	CARBON	680	5%	1/4W
R7423	1-249-429-11	CARBON	10K	5%	1/4W
R7424	1-249-399-11	CARBON	33	5%	1/4W
R7425	1-249-384-11	CARBON	1.8	5%	1/4W
R7426	1-249-384-11	CARBON	1.8	5%	1/4W
R7427	1-249-399-11	CARBON	33	5%	1/4W
R7428	1-215-914-11	METAL OXIDE	330	5%	3W
R7431	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7432	1-216-025-11	RES-CHIP	100	5%	1/10W
R7433	1-216-296-11	SHORT	0		
R7434	1-216-295-91	SHORT	0		
	* A-1391-133-A	ZG BOARD, COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			(Q7608, Q7609)
		<CAPACITOR>			
C7601	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C7602	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C7603	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C7604	1-104-660-91	ELECT	47µF	20%	16V
C7605	1-104-989-91	MYLAR	0.0022µF	10%	200V
C7606	1-104-989-91	MYLAR	0.0022µF	10%	200V
C7607	1-107-667-11	ELECT	2.2µF	20%	160V
C7608	1-130-471-00	MYLAR	0.001µF	5%	50V
C7609	1-130-471-00	MYLAR	0.001µF	5%	50V
C7612	1-106-363-00	MYLAR	0.0068µF	99%	200V
C7613	1-126-968-11	ELECT	100µF	20%	50V
C7614	1-126-968-11	ELECT	100µF	20%	50V
C7615	1-107-645-11	ELECT	22µF	20%	200V
C7616	1-161-830-00	CERAMIC	0.0047µF		500V
C7617	1-106-220-00	MYLAR	0.1µF	10%	100V
C7618	1-106-220-00	MYLAR	0.1µF	10%	100V

ZG ZB

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<CONNECTOR>			
CN7601 *	1-564-509-11	PLUG, CONNECTOR 6P			
CN7602 *	1-564-509-11	PLUG, CONNECTOR 6P			
CN7603 *	1-564-507-11	PLUG, CONNECTOR 4P			
CN7604 *	1-564-506-11	PLUG, CONNECTOR 3P			
CN7605 *	1-564-506-11	PLUG, CONNECTOR 3P			
CN7606 *	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
CN7607 *	1-564-506-11	PLUG, CONNECTOR 3P			
CN7608 *	1-564-507-11	PLUG, CONNECTOR 4P			
		<DIODE>			
D7601	8-719-921-86	DIODE MTZJ-13			
D7602	8-719-921-86	DIODE MTZJ-13			
		<DEFLECTION YOKE>			
DY7601⚠	1-451-465-21	DEFLECTION YOKE (G)			
		<COIL>			
L7601	1-412-911-11	FERRITE	0µH		
L7602	1-414-187-11	INDUCTOR	47µH		
		<TRANSISTOR>			
Q7601	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q7604	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q7605	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q7606	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q7607	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q7608	8-729-045-04	TRANSISTOR 2SC5511			
Q7609	8-729-045-05	TRANSISTOR 2SA2005			
Q7610	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		<RESISTOR>			
R7601	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R7602	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R7603	1-208-802-11	METAL CHIP	6.8K	0.5%	1/10W
R7604	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R7605	1-216-475-11	METAL OXIDE	120	5%	3W
R7610	1-249-385-11	CARBON	2.2	5%	1/4W
R7611	1-216-475-11	METAL OXIDE	120	5%	3W
R7612	1-249-414-11	CARBON	560	5%	1/4W
R7613	1-216-033-00	RES-CHIP	220	5%	1/10W
R7614	1-249-414-11	CARBON	560	5%	1/4W
R7615	1-249-415-11	CARBON	680	5%	1/4W
R7616	1-249-431-11	CARBON	15K	5%	1/4W
R7617	1-249-431-11	CARBON	15K	5%	1/4W
R7618	1-249-415-11	CARBON	680	5%	1/4W
R7619	1-216-001-00	RES-CHIP	10	5%	1/10W
R7620	1-216-001-00	RES-CHIP	10	5%	1/10W
R7621	1-249-429-11	CARBON	10K	5%	1/4W
R7624	1-249-399-11	CARBON	33	5%	1/4W
R7625	1-249-384-11	CARBON	1.8	5%	1/4W
R7626	1-249-384-11	CARBON	1.8	5%	1/4W
R7627	1-249-399-11	CARBON	33	5%	1/4W
R7628	1-215-914-11	METAL OXIDE	330	5%	3W
R7631	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7632	1-216-025-11	RES-CHIP	100	5%	1/10W
R7633	1-216-296-11	SHORT	0		
R7634	1-216-295-91	SHORT	0		
		**********			
*	A-1391-134-A	ZB BOARD, COMPLETE			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			(Q7808, Q7809)
		<CAPACITOR>			
C7801	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C7802	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C7803	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C7804	1-104-660-91	ELECT	47µF	20%	16V
C7805	1-104-989-91	MYLAR	0.0022µF	10%	200V
C7806	1-104-989-91	MYLAR	0.0022µF	10%	200V
C7807	1-107-667-11	ELECT	2.2µF	20%	160V
C7808	1-130-471-00	MYLAR	0.001µF	5%	50V
C7809	1-130-471-00	MYLAR	0.001µF	5%	50V
C7812	1-106-363-00	MYLAR	0.0068µF	99%	200V
C7813	1-126-968-11	ELECT	100µF	20%	50V
C7814	1-126-968-11	ELECT	100µF	20%	50V
C7815	1-107-645-11	ELECT	22µF	20%	200V
C7816	1-161-830-00	CERAMIC	0.0047µF		500V
		<CONNECTOR>			
CN7801 *	1-564-509-11	PLUG, CONNECTOR 6P			
CN7802 *	1-564-507-11	PLUG, CONNECTOR 4P			
CN7803 *	1-564-506-11	PLUG, CONNECTOR 3P			
CN7804 *	1-580-844-11	PIN, CONNECTOR (POWER)			
CN7805 *	1-564-506-11	PLUG, CONNECTOR 3P			
		<DIODE>			
D7801	8-719-921-86	DIODE MTZJ-13			
D7802	8-719-921-86	DIODE MTZJ-13			
		<DEFLECTION YOKE>			
DY7801⚠	1-451-465-21	DEFLECTION YOKE (B)			
		<COIL>			
L7801	1-412-911-11	FERRITE	0µH		
L7802	1-414-187-11	INDUCTOR	47µH		
		<TRANSISTOR>			
Q7801	8-729-120-28	TRANSISTOR 2SC1623-L5L6			

ZB CR

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
Q7804	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q7805	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q7806	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q7807	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q7808	8-729-045-04	TRANSISTOR 2SC5511			
Q7809	8-729-045-05	TRANSISTOR 2SA2005			
Q7810	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		<RESISTOR>			
R7801	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R7802	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R7803	1-208-802-11	METAL CHIP	6.8K	0.5%	1/10W
R7804	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R7807	1-216-475-11	METAL OXIDE	120	5%	3W
R7810	1-249-385-11	CARBON	2.2	5%	1/4W
R7811	1-216-475-11	METAL OXIDE	120	5%	3W
R7812	1-216-033-00	RES-CHIP	220	5%	1/10W
R7813	1-249-414-11	CARBON	560	5%	1/4W
R7814	1-216-001-00	RES-CHIP	10	5%	1/10W
R7815	1-216-001-00	RES-CHIP	10	5%	1/10W
R7816	1-249-414-11	CARBON	560	5%	1/4W
R7817	1-249-415-11	CARBON	680	5%	1/4W
R7818	1-249-431-11	CARBON	15K	5%	1/4W
R7819	1-249-431-11	CARBON	15K	5%	1/4W
R7820	1-249-415-11	CARBON	680	5%	1/4W
R7821	1-249-429-11	CARBON	10K	5%	1/4W
R7824	1-249-399-11	CARBON	33	5%	1/4W
R7825	1-249-384-11	CARBON	1.8	5%	1/4W
R7826	1-249-384-11	CARBON	1.8	5%	1/4W
R7827	1-249-399-11	CARBON	33	5%	1/4W
R7828	1-215-914-11	METAL OXIDE	330	5%	3W
R7831	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7832	1-216-025-11	RES-CHIP	100	5%	1/10W
R7833	1-216-296-11	SHORT	0		
R7834	1-216-295-91	SHORT	0		

****

* A-1332-181-A CR BOARD, COMPLETE

****

4-382-854-01 SCREW (M3X8), P, SW (+) (IC7101)

<CAPACITOR>

C7102	1-162-115-00	CERAMIC	330pF	10%	2KV
C7103	1-107-652-11	ELECT	10µF	20%	250V
C7104	1-126-768-11	ELECT	2200µF	20%	16V
C7105	1-162-115-00	CERAMIC	330pF	10%	2KV
C7106	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C7107	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C7108	1-126-967-11	ELECT	47µF	20%	50V
C7110	1-102-050-00	CERAMIC	0.01µF	99%	500V
C7111	1-161-830-00	CERAMIC	0.0047µF		500V
C7112	1-163-224-11	CERAMIC CHIP	7pF	0.25pF	50V
C7114	1-163-085-00	CERAMIC CHIP	2pF	0.25pF	50V
C7116	1-107-957-11	ELECT	1µF	20%	250V
C7118	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V

<CONNECTOR>

CN7101 *	1-564-512-11	PLUG, CONNECTOR 9P			
CN7102 *	1-564-510-11	PLUG, CONNECTOR 7P			
CN7103 *	1-564-512-11	PLUG, CONNECTOR 9P			
CN7104	1-785-879-11	CONNECTOR, ONE TOUCH			
CN7107	1-695-915-11	TAB (CONTACT)			

<DIODE>

D7102	8-719-921-86	DIODE MTZJ-13			
D7103	8-719-901-83	DIODE 1SS83			
D7104	8-719-901-83	DIODE 1SS83			
D7105	8-719-901-83	DIODE 1SS83			
D7106	8-719-901-83	DIODE 1SS83			
D7108	8-719-988-61	DIODE 1SS355TE-17			

<IC>

IC7101	8-759-360-83	IC TDA6111Q/N4			

<SOCKET>

J7101	⚠1-251-182-41	SOCKET, PICTURE TUBE			

<COIL>

L7102	1-414-223-11	INDUCTOR	470µH		
L7103	1-414-181-11	INDUCTOR	4.7µH		
L7104	1-414-187-11	INDUCTOR	47µH		

<NEON LAMP>

NL7101	1-576-354-21	GAP, SPARK			
NL7102	1-517-729-31	GAP, SPARK			
NL7103	1-576-354-21	GAP, SPARK			
NL7104	1-576-354-21	GAP, SPARK			
NL7105	1-576-354-21	GAP, SPARK			

<TRANSISTOR>

Q7101	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q7103	8-729-255-12	TRANSISTOR 2SC2551-O			
Q7104	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			

<RESISTOR>

R7101	1-260-132-11	CARBON	560K	5%	1/2W
R7102	1-249-389-11	CARBON	4.7	5%	1/4W
R7103	1-216-295-91	SHORT	0		
R7105	1-260-117-11	CARBON	33K	5%	1/2W
R7106	1-219-743-11	CARBON	100	5%	1/2W
R7107	1-208-801-11	METAL CHIP	6.2K	0.5%	1/10W
R7108	1-260-133-11	CARBON	680K	5%	1/2W
R7109	1-208-808-11	METAL CHIP	12K	0.5%	1/10W

CR CG

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R7110	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R7111	1-216-033-00	RES-CHIP	220	5%	1/10W
R7112	1-249-424-11	CARBON	3.9K	5%	1/4W
R7113	1-216-295-91	SHORT	0		
R7114	1-216-660-11	METAL CHIP	2.4K	0.5%	1/10W
R7115	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R7116	1-215-929-11	METAL OXIDE	100K	5%	3W
R7117	1-260-093-11	CARBON	330	5%	1/2W
R7119	1-260-328-11	CARBON	1K	5%	1/2W
R7120	1-216-081-00	RES-CHIP	22K	5%	1/10W
R7121	1-216-295-91	SHORT	0		
R7122	1-216-025-11	RES-CHIP	100	5%	1/10W
R7123	1-216-295-91	SHORT	0		
R7124	1-216-073-91	RES-CHIP	10K	5%	1/10W
R7128	1-216-818-11	METAL CHIP	33K	0.5%	1/10W
R7129	1-249-417-11	CARBON	1K	5%	1/4W
R7130	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R7131	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7132	1-216-295-91	SHORT	0		
R7133	1-208-834-11	METAL CHIP	150K	0.5%	1/10W
R7134	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7135	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
		<SPARK GAP>			
SG7101	1-519-422-11	GAP, SPARK			
SG7103	1-519-422-11	GAP, SPARK			
**********					
	* A-1332-182-A	CG BOARD, COMPLETE			
		**********			
	4-382-854-01	SCREW (M3X8), P, SW (+) (IC7201)			
		<CAPACITOR>			
C7202	1-162-115-00	CERAMIC	330pF	10%	2KV
C7203	1-126-768-11	ELECT	2200µF	20%	16V
C7204	1-107-652-11	ELECT	10µF	20%	250V
C7205	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C7206	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C7207	1-162-115-00	CERAMIC	330pF	10%	2KV
C7208	1-126-967-11	ELECT	47µF	20%	50V
C7209	1-102-050-00	CERAMIC	0.01µF	99%	500V
C7211	1-161-830-00	CERAMIC	0.0047µF		500V
C7212	1-163-224-11	CERAMIC CHIP	7pF	0.25pF	50V
C7213	1-163-085-00	CERAMIC CHIP	2pF	0.25pF	50V
C7214	1-126-964-11	ELECT	10µF	20%	50V
C7216	1-107-957-11	ELECT	1µF	20%	250V
		<CONNECTOR>			
CN7201	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN7202	* 1-564-509-11	PLUG, CONNECTOR 6P			
CN7203	* 1-564-512-11	PLUG, CONNECTOR 9P			
CN7204	* 1-564-512-11	PLUG, CONNECTOR 9P			
CN7205	1-785-879-11	CONNECTOR, ONE TOUCH			
CN7208	1-695-915-11	TAB (CONTACT)			
CN7210	* 1-564-506-11	PLUG, CONNECTOR 3P			
		<DIODE>			
D7202	8-719-921-86	DIODE MTZJ-13			
D7203	8-719-901-83	DIODE 1SS83			
D7204	8-719-901-83	DIODE 1SS83			
D7205	8-719-901-83	DIODE 1SS83			
D7206	8-719-901-83	DIODE 1SS83			
D7208	8-719-988-61	DIODE 1SS355TE-17			
		<IC>			
IC7201	8-759-360-83	IC TDA6111Q/N4			
		<SOCKET>			
J7201	⚠ 1-251-182-41	SOCKET, PICTURE TUBE			
		<COIL>			
L7201	1-414-223-11	INDUCTOR	470µH		
L7203	1-414-181-11	INDUCTOR	4.7µH		
L7204	1-414-187-11	INDUCTOR	47µH		
		<NEON LAMP>			
NL7201	1-576-354-21	GAP, SPARK			
NL7202	1-576-354-21	GAP, SPARK			
NL7203	1-517-729-31	GAP, SPARK			
NL7204	1-576-354-21	GAP, SPARK			
NL7205	1-576-354-21	GAP, SPARK			
		<TRANSISTOR>			
Q7201	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q7202	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q7203	8-729-255-12	TRANSISTOR 2SC2551-O			
		<RESISTOR>			
R7201	1-260-132-11	CARBON	560K	5%	1/2W
R7202	1-216-295-91	SHORT	0		
R7203	1-208-846-11	METAL CHIP	470K	0.5%	1/10W
R7204	1-219-743-11	CARBON	100	5%	1/2W
R7205	1-260-117-11	CARBON	33K	5%	1/2W
R7206	1-208-801-11	METAL CHIP	6.2K	0.5%	1/10W
R7207	1-208-808-11	METAL CHIP	12K	0.5%	1/10W
R7208	1-216-033-00	RES-CHIP	220	5%	1/10W
R7209	1-260-133-11	CARBON	680K	5%	1/2W
R7210	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R7211	1-249-424-11	CARBON	3.9K	5%	1/4W
R7212	1-208-789-11	METAL CHIP	2K	0.5%	1/10W
R7213	1-215-929-11	METAL OXIDE	100K	5%	3W
R7214	1-216-295-91	SHORT	0		
R7215	1-208-782-11	METAL CHIP	1K	0.5%	1/10W

CG CB

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R7216	1-260-093-11	CARBON	330	5%	1/2W
R7217	1-216-295-91	SHORT	0		
R7218	1-260-328-11	CARBON	1K	5%	1/2W
R7219	1-216-295-91	SHORT	0		
R7220	1-216-025-11	RES-CHIP	100	5%	1/10W
R7222	1-216-295-91	SHORT	0		
R7223	1-208-802-11	METAL CHIP	6.8K	0.5%	1/10W
R7224	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R7225	1-216-081-00	RES-CHIP	22K	5%	1/10W
R7229	1-249-417-11	CARBON	1K	5%	1/4W
R7235	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
		<SPARK GAP>			
SG7201	1-519-422-11	GAP, SPARK			
SG7203	1-519-422-11	GAP, SPARK			
**********					
	* A-1332-183-A	CB BOARD, COMPLETE			
		**********			
	4-382-854-01	SCREW (M3X8), P, SW (+) (IC7301)			
		<CAPACITOR>			
C7302	1-162-115-00	CERAMIC	330pF	10%	2KV
C7303	1-162-115-00	CERAMIC	330pF	10%	2KV
C7304	1-126-768-11	ELECT	2200µF	20%	16V
C7305	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C7306	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C7307	1-107-652-11	ELECT	10µF	20%	250V
C7308	1-126-967-11	ELECT	47µF	20%	50V
C7309	1-163-085-00	CERAMIC CHIP	2pF	0.25pF	50V
C7311	1-102-050-00	CERAMIC	0.01µF	99%	500V
C7312	1-161-830-00	CERAMIC	0.0047µF		500V
C7313	1-163-091-00	CERAMIC CHIP	8pF	0.25pF	50V
C7314	1-126-964-11	ELECT	10µF	20%	50V
C7315	1-126-960-11	ELECT	1µF	20%	50V
C7318	1-107-957-11	ELECT	1µF	20%	250V
		<CONNECTOR>			
CN7301	* 1-564-509-11	PLUG, CONNECTOR 6P			
CN7302	* 1-564-512-11	PLUG, CONNECTOR 9P			
CN7303	* 1-564-512-11	PLUG, CONNECTOR 9P			
CN7304	1-785-879-11	CONNECTOR, ONE TOUCH			
CN7307	1-695-915-11	TAB (CONTACT)			
		<DIODE>			
D7302	8-719-921-86	DIODE MTZJ-13			
D7303	8-719-901-83	DIODE 1SS83			
D7304	8-719-901-83	DIODE 1SS83			
D7305	8-719-901-83	DIODE 1SS83			
D7306	8-719-901-83	DIODE 1SS83			
D7307	8-719-988-61	DIODE 1SS355TE-17			
D7308	8-719-921-88	DIODE MTZJ-13B			
D7309	8-719-988-61	DIODE 1SS355TE-17			
		<IC>			
IC7301	8-759-360-83	IC TDA6111Q/N4			
		<SOCKET>			
J7301	⚠1-251-182-41	SOCKET, PICTURE TUBE			
		<COIL>			
L7301	1-414-223-11	INDUCTOR	470µH		
L7303	1-414-181-11	INDUCTOR	4.7µH		
L7304	1-414-187-11	INDUCTOR	47µH		
		<NEON LAMP>			
NL7301	1-576-354-21	GAP, SPARK			
NL7302	1-517-729-31	GAP, SPARK			
NL7303	1-576-354-21	GAP, SPARK			
NL7304	1-576-354-21	GAP, SPARK			
NL7305	1-576-354-21	GAP, SPARK			
		<TRANSISTOR>			
Q7301	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q7302	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q7303	8-729-255-12	TRANSISTOR 2SC2551-O			
Q7305	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q7306	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
		<RESISTOR>			
R7301	1-219-743-11	CARBON	100	5%	1/2W
R7302	1-260-132-11	CARBON	560K	5%	1/2W
R7304	1-216-295-91	SHORT	0		
R7306	1-260-328-11	CARBON	1K	5%	1/2W
R7307	1-208-801-11	METAL CHIP	6.2K	0.5%	1/10W
R7308	1-260-133-11	CARBON	680K	5%	1/2W
R7309	1-216-660-11	METAL CHIP	2.4K	0.5%	1/10W
R7310	1-216-295-91	SHORT	0		
R7311	1-208-808-11	METAL CHIP	12K	0.5%	1/10W
R7312	1-216-660-11	METAL CHIP	2.4K	0.5%	1/10W
R7313	1-216-033-00	RES-CHIP	220	5%	1/10W
R7314	1-249-424-11	CARBON	3.9K	5%	1/4W
R7315	1-216-295-91	SHORT	0		
R7316	1-215-929-11	METAL OXIDE	100K	5%	3W
R7317	1-260-093-11	CARBON	330	5%	1/2W
R7318	1-216-295-91	SHORT	0		
R7319	1-208-796-11	METAL CHIP	3.9K	0.5%	1/10W
R7321	1-260-117-11	CARBON	33K	5%	1/2W
R7322	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R7323	1-216-025-11	RES-CHIP	100	5%	1/10W
R7324	1-216-295-91	SHORT	0		
R7326	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W
R7327	1-208-799-11	METAL CHIP	5.1K	0.5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R7328	1-216-073-91	RES-CHIP	10K	5%	1/10W
R7329	1-216-091-00	RES-CHIP	56K	5%	1/10W
R7330	1-216-081-00	RES-CHIP	22K	5%	1/10W
R7331	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R7332	1-216-081-00	RES-CHIP	22K	5%	1/10W
R7335	1-249-417-11	CARBON	1K	5%	1/4W
R7336	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
		<SPARK GAP>			
SG7301	1-519-422-11	GAP, SPARK			
SG7303	1-519-422-11	GAP, SPARK			
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	* A-1620-145-A	B3 BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C333	1-216-295-91	SHORT	0		
C368	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C369	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C372	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C373	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C374	1-126-603-11	ELECT CHIP	4.7µF	20%	35V
C375	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C376	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C377	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C378	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C501	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C502	1-124-779-00	ELECT CHIP	10µF	20%	16V
C503	1-124-779-00	ELECT CHIP	10µF	20%	16V
C505	1-124-779-00	ELECT CHIP	10µF	20%	16V
C507	1-124-779-00	ELECT CHIP	10µF	20%	16V
C509	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C510	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C511	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C512	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C514	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C515	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C516	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C517	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C518	1-126-204-11	ELECT CHIP	47µF	20%	16V
C519	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C520	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C521	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C522	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C523	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C524	1-124-779-00	ELECT CHIP	10µF	20%	16V
C525	1-124-779-00	ELECT CHIP	10µF	20%	16V
C526	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C527	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C528	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C529	1-124-779-00	ELECT CHIP	10µF	20%	16V
C531	1-124-779-00	ELECT CHIP	10µF	20%	16V
C533	1-124-779-00	ELECT CHIP	10µF	20%	16V
C535	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C536	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C537	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C538	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C539	1-126-204-11	ELECT CHIP	47µF	20%	16V
C540	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C542	1-126-204-11	ELECT CHIP	47µF	20%	16V
C543	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C545	1-126-396-11	ELECT CHIP	47µF	20%	16V
C546	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C548	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C549	1-126-204-11	ELECT CHIP	47µF	20%	16V
C550	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C551	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C554	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C555	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C556	1-126-392-11	ELECT CHIP	100µF	20%	6.3V
C557	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C559	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C560	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C601	1-124-779-00	ELECT CHIP	10µF	20%	16V
C602	1-126-394-11	ELECT CHIP	10µF	20%	16V
C603	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C604	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C605	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C606	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C607	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C608	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C609	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C610	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C611	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C612	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C613	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C614	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C615	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C616	1-126-396-11	ELECT CHIP	47µF	20%	16V
C617	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C618	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C619	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C620	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C621	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C622	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C623	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C624	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C625	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C626	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C627	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C628	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C629	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C630	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C631	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C632	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C633	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C634	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C635	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C636	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V

B3

REF.NO.	PART NO.	DESCRIPTION				REMARK
C637	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C638	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C639	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C640	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C642	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C643	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C644	1-126-603-11	ELECT CHIP	4.7µF	20%	35V	
C645	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C703	1-126-394-11	ELECT CHIP	10µF	20%	16V	
C704	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C705	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C706	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C707	1-126-204-11	ELECT CHIP	47µF	20%	16V	
C708	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C709	1-110-501-11	CERAMIC CHIP	0.33µF	10%	16V	
C710	1-163-019-00	CERAMIC CHIP	0.0068µF	10%	50V	
C711	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C712	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C713	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C714	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C715	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C716	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C717	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C718	1-126-204-11	ELECT CHIP	47µF	20%	16V	
C719	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C722	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C723	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C724	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C725	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C726	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C727	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C728	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C729	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C730	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C735	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C738	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C739	1-163-227-11	CERAMIC CHIP	10pF	0.5pF	50V	
C740	1-163-227-11	CERAMIC CHIP	10pF	0.5pF	50V	
C801	1-124-779-00	ELECT CHIP	10µF	20%	16V	
C802	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C803	1-124-779-00	ELECT CHIP	10µF	20%	16V	
C804	1-124-779-00	ELECT CHIP	10µF	20%	16V	
C806	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C807	1-124-779-00	ELECT CHIP	10µF	20%	16V	
C808	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C809	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C810	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C811	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C812	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C813	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C814	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C815	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C816	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C817	1-163-229-11	CERAMIC CHIP	12pF	5%	50V	
C818	1-163-229-11	CERAMIC CHIP	12pF	5%	50V	
C819	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C820	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C821	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C822	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C823	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C824	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C827	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C829	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C834	1-163-038-91	CERAMIC CHIP	0.1µF		25V	
C835	1-163-038-91	CERAMIC CHIP	0.1µF		25V	
C839	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C840	1-126-206-11	ELECT CHIP	100µF	20%	6.3V	
C841	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C842	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C843	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C844	1-163-038-91	CERAMIC CHIP	0.1µF		25V	
C848	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V	
C849	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C850	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C851	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C901	1-163-038-91	CERAMIC CHIP	0.1µF		25V	
C902	1-163-038-91	CERAMIC CHIP	0.1µF		25V	
C903	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
C904	1-124-779-00	ELECT CHIP	10µF	20%	16V	
C905	1-109-982-11	CERAMIC CHIP	1µF	10%	10V	
C906	1-124-779-00	ELECT CHIP	10µF	20%	16V	
C907	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V	
		<CONNECTOR>				
CN502	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P				
		<DIODE>				
D501	8-719-083-58	DIODE UDZSTE-173.9B				
		<FERRITE BEAD>				
FB501	1-414-235-11	FERRITE	0µH			
FB502	1-414-235-11	FERRITE	0µH			
FB503	1-414-235-11	FERRITE	0µH			
FB504	1-414-235-11	FERRITE	0µH			
FB601	1-414-766-21	FERRITE	0µH			
FB701	1-414-766-21	FERRITE	0µH			
FB702	1-414-766-21	FERRITE	0µH			
FB801	1-414-766-21	FERRITE	0µH			
FB802	1-414-766-21	FERRITE	0µH			
		<FILTER>				
FL306	1-239-558-11	FILTER, CHIP EMI				
FL501	1-233-877-11	FILTER, LOW PASS				
FL502	1-233-504-21	FILTER, LOW PASS				
FL503	1-233-504-21	FILTER, LOW PASS				
FL504	1-234-177-21	FILTER, CHIP EMI				
FL505	1-234-177-21	FILTER, CHIP EMI				
FL506	1-234-177-21	FILTER, CHIP EMI				

REF.NO.	PART NO.	DESCRIPTION	REMARK
FL508	1-234-177-21	FILTER, CHIP EMI	
FL509	1-234-177-21	FILTER, CHIP EMI	
FL510	1-234-177-21	FILTER, CHIP EMI	
FL511	1-234-177-21	FILTER, CHIP EMI	
FL512	1-234-177-21	FILTER, CHIP EMI	
FL601	1-234-177-21	FILTER, CHIP EMI	
FL602	1-234-177-21	FILTER, CHIP EMI	
FL603	1-234-177-21	FILTER, CHIP EMI	
FL606	1-239-560-11	FILTER, CHIP EMI	
FL701	1-234-177-21	FILTER, CHIP EMI	
FL703	1-234-177-21	FILTER, CHIP EMI	
FL704	1-234-177-21	FILTER, CHIP EMI	
FL705	1-234-177-21	FILTER, CHIP EMI	
FL801	1-234-177-21	FILTER, CHIP EMI	
FL802	1-234-177-21	FILTER, CHIP EMI	
FL803	1-234-177-21	FILTER, CHIP EMI	
FL804	1-234-177-21	FILTER, CHIP EMI	
FL806	1-234-177-21	FILTER, CHIP EMI	
FL807	1-234-177-21	FILTER, CHIP EMI	
FL808	1-234-177-21	FILTER, CHIP EMI	
FL901	1-234-509-21	FILTER, LOW PASS	
FL902	1-233-876-11	FILTER, LOW PASS	
FL903	1-233-876-11	FILTER, LOW PASS	
FL904	1-234-177-21	FILTER, CHIP EMI	
FL905	1-234-177-21	FILTER, CHIP EMI	
		<IC>	
IC313	8-759-669-75	IC TLC2932IPWR	
IC314	8-759-525-10	IC TC7SET08F(TE85L)	
IC315	8-759-525-10	IC TC7SET08F(TE85L)	
IC316	8-759-525-10	IC TC7SET08F(TE85L)	
IC501	8-759-447-90	IC TLC5733AIPM	
IC504	8-759-669-78	IC TLC2933IPWR-12	
IC505	8-759-640-16	IC TC7SET04F(TE85R)	
IC506	8-759-640-16	IC TC7SET04F(TE85R)	
IC601	8-752-398-47	IC CXD2090Q	
IC602	8-759-836-98	IC W981616AH-7	
IC603	8-759-669-75	IC TLC2932IPWR	
IC604	8-752-072-94	IC CXA1875AM-T4	
IC701	8-759-640-18	IC TMC57127-MMP-54	
IC704	8-759-640-17	IC MSM534031E-22GS-KR1	
IC705	8-759-242-70	IC TC7WU04F	
IC801	8-759-672-57	IC CXD9509AQ	
IC802	8-759-713-79	IC MB81F643242C-10FN	
IC901	8-752-369-84	IC CXD2309Q-T6	
		<COIL>	
L304	1-412-029-11	INDUCTOR CHIP	10µH
L305	1-412-029-11	INDUCTOR CHIP	10µH
L501	1-412-026-11	INDUCTOR CHIP	1µH
L502	1-412-026-11	INDUCTOR CHIP	1µH
L503	1-412-026-11	INDUCTOR CHIP	1µH
L504	1-412-026-11	INDUCTOR CHIP	1µH
L505	1-412-029-11	INDUCTOR CHIP	10µH
L506	1-412-026-11	INDUCTOR CHIP	1µH
L508	1-412-029-11	INDUCTOR CHIP	10µH
L509	1-412-029-11	INDUCTOR CHIP	10µH
L511	1-412-026-11	INDUCTOR CHIP	1µH
L512	1-412-026-11	INDUCTOR CHIP	1µH
L604	1-412-029-11	INDUCTOR CHIP	10µH
L605	1-412-029-11	INDUCTOR CHIP	10µH
		<TRANSISTOR>	
Q304	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q501	8-729-216-22	TRANSISTOR 2SA1162-G	
Q502	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q503	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q510	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q511	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q512	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q513	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q514	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q515	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q516	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q517	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q518	8-729-216-22	TRANSISTOR 2SA1162-G	
Q519	1-801-806-11	TRANSISTOR DTC144EKA	
Q521	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q522	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q523	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q524	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q601	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q602	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q901	8-729-216-22	TRANSISTOR 2SA1162-G	
Q902	8-729-216-22	TRANSISTOR 2SA1162-G	
Q903	8-729-216-22	TRANSISTOR 2SA1162-G	
Q904	8-729-028-28	TRANSISTOR 2SK2036 (TE85L)	
Q905	8-729-028-28	TRANSISTOR 2SK2036 (TE85L)	
Q907	8-729-216-22	TRANSISTOR 2SA1162-G	
Q908	8-729-216-22	TRANSISTOR 2SA1162-G	
Q909	8-729-216-22	TRANSISTOR 2SA1162-G	
		<RESISTOR>	
R310	1-216-009-91	RES-CHIP 22 5% 1/10W	
R334	1-216-295-91	SHORT 0	
R339	1-216-295-91	SHORT 0	
R350	1-216-295-91	SHORT 0	
R361	1-216-061-91	RES-CHIP 3.3K 5% 1/10W	
R362	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R363	1-216-037-00	RES-CHIP 330 5% 1/10W	
R364	1-216-295-91	SHORT 0	
R365	1-216-047-91	RES-CHIP 820 5% 1/10W	
R366	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R367	1-216-117-00	RES-CHIP 680K 5% 1/10W	
R368	1-216-117-00	RES-CHIP 680K 5% 1/10W	
R369	1-216-295-91	SHORT 0	
R371	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R372	1-216-009-91	RES-CHIP 22 5% 1/10W	

B3

REF.NO.	PART NO.	DESCRIPTION			REMARK
R373	1-216-066-00	RES-CHIP	5.1K	5%	1/10W
R501	1-216-025-11	RES-CHIP	100	5%	1/10W
R502	1-216-025-11	RES-CHIP	100	5%	1/10W
R503	1-216-295-91	SHORT	0		
R504	1-216-295-91	SHORT	0		
R505	1-216-295-91	SHORT	0		
R506	1-216-025-11	RES-CHIP	100	5%	1/10W
R507	1-216-025-11	RES-CHIP	100	5%	1/10W
R508	1-216-025-11	RES-CHIP	100	5%	1/10W
R509	1-216-025-11	RES-CHIP	100	5%	1/10W
R510	1-216-043-91	RES-CHIP	560	5%	1/10W
R511	1-216-043-91	RES-CHIP	560	5%	1/10W
R512	1-216-043-91	RES-CHIP	560	5%	1/10W
R513	1-216-043-91	RES-CHIP	560	5%	1/10W
R514	1-216-043-91	RES-CHIP	560	5%	1/10W
R515	1-216-043-91	RES-CHIP	560	5%	1/10W
R516	1-216-049-11	RES-CHIP	1K	5%	1/10W
R517	1-216-049-11	RES-CHIP	1K	5%	1/10W
R518	1-216-295-91	SHORT	0		
R520	1-208-776-11	METAL CHIP	560	0.5%	1/10W
R521	1-216-295-91	SHORT	0		
R523	1-208-776-11	METAL CHIP	560	0.5%	1/10W
R524	1-216-295-91	SHORT	0		
R526	1-208-776-11	METAL CHIP	560	0.5%	1/10W
R528	1-216-037-00	RES-CHIP	330	5%	1/10W
R529	1-208-800-11	METAL CHIP	5.6K	0.5%	1/10W
R530	1-208-800-11	METAL CHIP	5.6K	0.5%	1/10W
R531	1-216-031-00	RES-CHIP	180	5%	1/10W
R532	1-208-800-11	METAL CHIP	5.6K	0.5%	1/10W
R533	1-216-031-00	RES-CHIP	180	5%	1/10W
R534	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R535	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R536	1-216-049-11	RES-CHIP	1K	5%	1/10W
R537	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R540	1-216-049-11	RES-CHIP	1K	5%	1/10W
R548	1-208-750-11	METAL CHIP	47	0.5%	1/10W
R549	1-208-750-11	METAL CHIP	47	0.5%	1/10W
R550	1-208-756-11	METAL CHIP	82	0.5%	1/10W
R551	1-208-756-11	METAL CHIP	82	0.5%	1/10W
R552	1-208-750-11	METAL CHIP	47	0.5%	1/10W
R553	1-216-295-91	SHORT	0		
R554	1-208-750-11	METAL CHIP	47	0.5%	1/10W
R555	1-216-077-91	RES-CHIP	15K	5%	1/10W
R557	1-216-049-11	RES-CHIP	1K	5%	1/10W
R558	1-216-025-11	RES-CHIP	100	5%	1/10W
R559	1-216-077-91	RES-CHIP	15K	5%	1/10W
R560	1-208-750-11	METAL CHIP	47	0.5%	1/10W
R561	1-216-043-91	RES-CHIP	560	5%	1/10W
R562	1-216-043-91	RES-CHIP	560	5%	1/10W
R563	1-216-043-91	RES-CHIP	560	5%	1/10W
R564	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R565	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R566	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R571	1-216-295-91	SHORT	0		
R572	1-208-750-11	METAL CHIP	47	0.5%	1/10W
R575	1-208-756-11	METAL CHIP	82	0.5%	1/10W
R576	1-208-756-11	METAL CHIP	82	0.5%	1/10W
R577	1-208-750-11	METAL CHIP	47	0.5%	1/10W
R578	1-208-750-11	METAL CHIP	47	0.5%	1/10W
R579	1-216-077-91	RES-CHIP	15K	5%	1/10W
R580	1-216-295-91	SHORT	0		
R582	1-216-041-00	RES-CHIP	470	5%	1/10W
R584	1-216-041-00	RES-CHIP	470	5%	1/10W
R586	1-216-049-11	RES-CHIP	1K	5%	1/10W
R587	1-216-049-11	RES-CHIP	1K	5%	1/10W
R589	1-216-049-11	RES-CHIP	1K	5%	1/10W
R590	1-216-049-11	RES-CHIP	1K	5%	1/10W
R591	1-216-049-11	RES-CHIP	1K	5%	1/10W
R592	1-216-049-11	RES-CHIP	1K	5%	1/10W
R594	1-216-041-00	RES-CHIP	470	5%	1/10W
R596	1-216-049-11	RES-CHIP	1K	5%	1/10W
R597	1-216-073-91	RES-CHIP	10K	5%	1/10W
R600	1-216-066-00	RES-CHIP	5.1K	5%	1/10W
R601	1-216-073-91	RES-CHIP	10K	5%	1/10W
R602	1-216-073-91	RES-CHIP	10K	5%	1/10W
R603	1-216-073-91	RES-CHIP	10K	5%	1/10W
R604	1-216-033-00	RES-CHIP	220	5%	1/10W
R605	1-216-295-91	SHORT	0		
R608	1-216-295-91	SHORT	0		
R609	1-216-073-91	RES-CHIP	10K	5%	1/10W
R610	1-216-033-00	RES-CHIP	220	5%	1/10W
R611	1-216-073-91	RES-CHIP	10K	5%	1/10W
R613	1-216-073-91	RES-CHIP	10K	5%	1/10W
R616	1-216-073-91	RES-CHIP	10K	5%	1/10W
R617	1-216-295-91	SHORT	0		
R618	1-216-295-91	SHORT	0		
R619	1-216-073-91	RES-CHIP	10K	5%	1/10W
R621	1-216-295-91	SHORT	0		
R622	1-216-295-91	SHORT	0		
R623	1-216-295-91	SHORT	0		
R625	1-216-295-91	SHORT	0		
R626	1-216-073-91	RES-CHIP	10K	5%	1/10W
R628	1-216-295-91	SHORT	0		
R629	1-216-073-91	RES-CHIP	10K	5%	1/10W
R631	1-216-295-91	SHORT	0		
R634	1-216-295-91	SHORT	0		
R635	1-216-295-91	SHORT	0		
R638	1-216-295-91	SHORT	0		
R639	1-216-019-00	RES-CHIP	56	5%	1/10W
R640	1-216-009-91	RES-CHIP	22	5%	1/10W
R642	1-216-295-91	SHORT	0		
R643	1-216-295-91	SHORT	0		
R645	1-216-295-91	SHORT	0		
R651	1-216-295-91	SHORT	0		
R653	1-216-025-11	RES-CHIP	100	5%	1/10W
R654	1-216-033-00	RES-CHIP	220	5%	1/10W
R655	1-216-295-91	SHORT	0		
R657	1-216-009-91	RES-CHIP	22	5%	1/10W
R658	1-216-049-11	RES-CHIP	1K	5%	1/10W
R659	1-216-025-11	RES-CHIP	100	5%	1/10W
R660	1-216-025-11	RES-CHIP	100	5%	1/10W
R661	1-216-025-11	RES-CHIP	100	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R663	1-216-295-91	SHORT	0		
R664	1-216-009-91	RES-CHIP	22	5%	1/10W
R665	1-216-035-00	RES-CHIP	270	5%	1/10W
R666	1-216-646-11	METAL CHIP	620	0.5%	1/10W
R667	1-208-794-11	METAL CHIP	3.3K	0.5%	1/10W
R668	1-216-009-91	RES-CHIP	22	5%	1/10W
R669	1-216-295-91	SHORT	0		
R670	1-216-295-91	SHORT	0		
R671	1-216-073-91	RES-CHIP	10K	5%	1/10W
R672	1-216-073-91	RES-CHIP	10K	5%	1/10W
R673	1-216-073-91	RES-CHIP	10K	5%	1/10W
R674	1-216-073-91	RES-CHIP	10K	5%	1/10W
R675	1-216-073-91	RES-CHIP	10K	5%	1/10W
R676	1-216-073-91	RES-CHIP	10K	5%	1/10W
R677	1-216-073-91	RES-CHIP	10K	5%	1/10W
R678	1-216-073-91	RES-CHIP	10K	5%	1/10W
R679	1-216-073-91	RES-CHIP	10K	5%	1/10W
R680	1-216-073-91	RES-CHIP	10K	5%	1/10W
R681	1-216-073-91	RES-CHIP	10K	5%	1/10W
R682	1-216-073-91	RES-CHIP	10K	5%	1/10W
R683	1-216-073-91	RES-CHIP	10K	5%	1/10W
R684	1-216-073-91	RES-CHIP	10K	5%	1/10W
R685	1-216-073-91	RES-CHIP	10K	5%	1/10W
R686	1-216-073-91	RES-CHIP	10K	5%	1/10W
R687	1-216-295-91	SHORT	0		
R688	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R689	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R690	1-216-295-91	SHORT	0		
R691	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R692	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R693	1-216-009-91	RES-CHIP	22	5%	1/10W
R694	1-216-295-91	SHORT	0		
R695	1-216-047-91	RES-CHIP	820	5%	1/10W
R696	1-216-049-11	RES-CHIP	1K	5%	1/10W
R697	1-216-117-00	RES-CHIP	680K	5%	1/10W
R698	1-216-117-00	RES-CHIP	680K	5%	1/10W
R699	1-216-295-91	SHORT	0		
R703	1-216-295-91	SHORT	0		
R704	1-216-295-91	SHORT	0		
R705	1-216-295-91	SHORT	0		
R709	1-216-005-00	RES-CHIP	15	5%	1/10W
R710	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R712	1-216-049-11	RES-CHIP	1K	5%	1/10W
R713	1-216-295-91	SHORT	0		
R714	1-216-121-11	RES-CHIP	1M	5%	1/10W
R715	1-216-033-00	RES-CHIP	220	5%	1/10W
R801	1-216-009-91	RES-CHIP	22	5%	1/10W
R802	1-216-009-91	RES-CHIP	22	5%	1/10W
R804	1-216-073-91	RES-CHIP	10K	5%	1/10W
R806	1-208-800-11	METAL CHIP	5.6K	0.5%	1/10W
R807	1-208-778-11	METAL CHIP	680	0.5%	1/10W
R813	1-216-295-91	SHORT	0		
R814	1-216-073-91	RES-CHIP	10K	5%	1/10W
R815	1-216-073-91	RES-CHIP	10K	5%	1/10W
R816	1-216-073-91	RES-CHIP	10K	5%	1/10W
R817	1-216-017-91	RES-CHIP	47	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R823	1-216-073-91	RES-CHIP	10K	5%	1/10W
R824	1-216-073-91	RES-CHIP	10K	5%	1/10W
R825	1-208-760-11	METAL CHIP	120	0.5%	1/10W
R826	1-208-758-11	METAL CHIP	100	0.5%	1/10W
R827	1-216-607-11	METAL CHIP	15	0.5%	1/10W
R831	1-216-295-91	SHORT	0		
R832	1-216-295-91	SHORT	0		
R833	1-216-295-91	SHORT	0		
R834	1-208-760-11	METAL CHIP	120	0.5%	1/10W
R835	1-208-755-11	METAL CHIP	75	0.5%	1/10W
R836	1-211-960-11	METAL CHIP	22	0.5%	1/10W
R844	1-216-017-91	RES-CHIP	47	5%	1/10W
R845	1-216-017-91	RES-CHIP	47	5%	1/10W
R846	1-216-017-91	RES-CHIP	47	5%	1/10W
R847	1-216-017-91	RES-CHIP	47	5%	1/10W
R848	1-216-017-91	RES-CHIP	47	5%	1/10W
R849	1-216-017-91	RES-CHIP	47	5%	1/10W
R850	1-216-017-91	RES-CHIP	47	5%	1/10W
R851	1-216-017-91	RES-CHIP	47	5%	1/10W
R852	1-216-009-91	RES-CHIP	22	5%	1/10W
R853	1-216-009-91	RES-CHIP	22	5%	1/10W
R854	1-216-009-91	RES-CHIP	22	5%	1/10W
R855	1-216-009-91	RES-CHIP	22	5%	1/10W
R856	1-216-009-91	RES-CHIP	22	5%	1/10W
R857	1-216-009-91	RES-CHIP	22	5%	1/10W
R858	1-216-009-91	RES-CHIP	22	5%	1/10W
R859	1-216-009-91	RES-CHIP	22	5%	1/10W
R860	1-216-009-91	RES-CHIP	22	5%	1/10W
R861	1-216-009-91	RES-CHIP	22	5%	1/10W
R862	1-216-009-91	RES-CHIP	22	5%	1/10W
R863	1-216-009-91	RES-CHIP	22	5%	1/10W
R864	1-216-017-91	RES-CHIP	47	5%	1/10W
R865	1-216-017-91	RES-CHIP	47	5%	1/10W
R866	1-216-017-91	RES-CHIP	47	5%	1/10W
R867	1-216-017-91	RES-CHIP	47	5%	1/10W
R868	1-216-017-91	RES-CHIP	47	5%	1/10W
R869	1-216-017-91	RES-CHIP	47	5%	1/10W
R870	1-216-017-91	RES-CHIP	47	5%	1/10W
R871	1-216-017-91	RES-CHIP	47	5%	1/10W
R872	1-216-017-91	RES-CHIP	47	5%	1/10W
R873	1-216-017-91	RES-CHIP	47	5%	1/10W
R874	1-216-017-91	RES-CHIP	47	5%	1/10W
R875	1-216-017-91	RES-CHIP	47	5%	1/10W
R876	1-216-017-91	RES-CHIP	47	5%	1/10W
R877	1-216-017-91	RES-CHIP	47	5%	1/10W
R878	1-216-017-91	RES-CHIP	47	5%	1/10W
R879	1-216-017-91	RES-CHIP	47	5%	1/10W
R880	1-216-009-91	RES-CHIP	22	5%	1/10W
R881	1-216-009-91	RES-CHIP	22	5%	1/10W
R882	1-216-009-91	RES-CHIP	22	5%	1/10W
R883	1-216-009-91	RES-CHIP	22	5%	1/10W
R884	1-216-009-91	RES-CHIP	22	5%	1/10W
R885	1-216-009-91	RES-CHIP	22	5%	1/10W
R886	1-216-009-91	RES-CHIP	22	5%	1/10W
R887	1-216-009-91	RES-CHIP	22	5%	1/10W
R888	1-216-009-91	RES-CHIP	22	5%	1/10W

B3 A

REF.NO.	PART NO.	DESCRIPTION			REMARK
R889	1-216-295-91	SHORT	0		
R890	1-216-009-91	RES-CHIP	22	5%	1/10W
R891	1-216-017-91	RES-CHIP	47	5%	1/10W
R892	1-216-017-91	RES-CHIP	47	5%	1/10W
R893	1-216-017-91	RES-CHIP	47	5%	1/10W
R894	1-216-017-91	RES-CHIP	47	5%	1/10W
R895	1-216-017-91	RES-CHIP	47	5%	1/10W
R896	1-216-017-91	RES-CHIP	47	5%	1/10W
R897	1-216-017-91	RES-CHIP	47	5%	1/10W
R898	1-216-017-91	RES-CHIP	47	5%	1/10W
R901	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R902	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R903	1-208-794-11	METAL CHIP	3.3K	0.5%	1/10W
R904	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R905	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R906	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R907	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R908	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R909	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R910	1-216-049-11	RES-CHIP	1K	5%	1/10W
R911	1-216-049-11	RES-CHIP	1K	5%	1/10W
R912	1-216-049-11	RES-CHIP	1K	5%	1/10W
R914	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R916	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R917	1-216-295-91	SHORT	0		
R919	1-216-295-91	SHORT	0		
R940	1-216-295-91	SHORT	0		
R941	1-216-295-91	SHORT	0		
R942	1-216-037-00	RES-CHIP	330	5%	1/10W
R943	1-216-033-00	RES-CHIP	220	5%	1/10W
R951	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R952	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R956	1-216-089-91	RES-CHIP	47K	5%	1/10W
R957	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R958	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R959	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R960	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R961	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R962	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R979	1-216-295-91	SHORT	0		
R981	1-216-037-00	RES-CHIP	330	5%	1/10W
R982	1-216-037-00	RES-CHIP	330	5%	1/10W
R983	1-216-089-91	RES-CHIP	47K	5%	1/10W
R984	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R985	1-216-113-00	RES-CHIP	470K	5%	1/10W
R986	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R987	1-216-049-11	RES-CHIP	1K	5%	1/10W
R988	1-216-033-00	RES-CHIP	220	5%	1/10W
R989	1-216-081-00	RES-CHIP	22K	5%	1/10W
R990	1-216-113-00	RES-CHIP	470K	5%	1/10W
R991	1-216-295-91	SHORT	0		
R993	1-216-089-91	RES-CHIP	47K	5%	1/10W
R994	1-216-033-00	RES-CHIP	220	5%	1/10W
R995	1-216-033-00	RES-CHIP	220	5%	1/10W
R996	1-216-037-00	RES-CHIP	330	5%	1/10W
R2801	1-208-760-11	METAL CHIP	120	0.5%	1/10W
R2802	1-208-754-11	METAL CHIP	68	0.5%	1/10W
R2803	1-216-603-11	METAL CHIP	10	0.5%	1/10W
R2804	1-208-760-11	METAL CHIP	120	0.5%	1/10W
R2805	1-208-755-11	METAL CHIP	75	0.5%	1/10W
R2806	1-211-960-11	METAL CHIP	22	0.5%	1/10W
R2807	1-216-295-91	SHORT	0		
R2808	1-216-295-91	SHORT	0		
R2813	1-216-295-91	SHORT	0		
R2815	1-216-295-91	SHORT	0		
R2817	1-216-295-91	SHORT	0		
R2818	1-216-295-91	SHORT	0		
R2822	1-216-295-91	SHORT	0		

<NETWORK RESISTOR>

RB001	1-239-412-11	NETWORK RESISTOR (CHIP) 100
RB002	1-239-412-11	NETWORK RESISTOR (CHIP) 100
RB003	1-239-412-11	NETWORK RESISTOR (CHIP) 100
RB004	1-239-412-11	NETWORK RESISTOR (CHIP) 100
RB005	1-239-412-11	NETWORK RESISTOR (CHIP) 100
RB006	1-239-412-11	NETWORK RESISTOR (CHIP) 100
RB007	1-239-414-11	NETWORK RESISTOR (CHIP) 150
RB008	1-239-414-11	NETWORK RESISTOR (CHIP) 150
RB009	1-239-414-11	NETWORK RESISTOR (CHIP) 150
RB010	1-239-414-11	NETWORK RESISTOR (CHIP) 150
RB011	1-239-414-11	NETWORK RESISTOR (CHIP) 150
RB012	1-239-414-11	NETWORK RESISTOR (CHIP) 150
RB013	1-239-621-11	NETWORK RESISTOR (CHIP) 22
RB014	1-239-621-11	NETWORK RESISTOR (CHIP) 22
RB015	1-239-621-11	NETWORK RESISTOR (CHIP) 22
RB016	1-239-621-11	NETWORK RESISTOR (CHIP) 22
RB017	1-239-621-11	NETWORK RESISTOR (CHIP) 22
RB018	1-239-621-11	NETWORK RESISTOR (CHIP) 22
RB019	1-239-409-11	NETWORK RESISTOR (CHIP) 47
RB020	1-239-409-11	NETWORK RESISTOR (CHIP) 47
RB021	1-239-409-11	NETWORK RESISTOR (CHIP) 47
RB022	1-239-409-11	NETWORK RESISTOR (CHIP) 47
RB023	1-239-409-11	NETWORK RESISTOR (CHIP) 47
RB024	1-239-409-11	NETWORK RESISTOR (CHIP) 47
RB025	1-239-409-11	NETWORK RESISTOR (CHIP) 47
RB026	1-239-409-11	NETWORK RESISTOR (CHIP) 47
RB027	1-239-409-11	NETWORK RESISTOR (CHIP) 47

<CRYSTAL>

X702	1-781-694-21	VIBRATOR, CRYSTAL (15MHz)
X802	1-795-112-11	VIBRATOR, CRYSTAL (17.28MHz)

****

* A-1299-119-A A BOARD, COMPLETE
****

4-202-373-01 SPRING, IC (IC1101)
4-363-414-11 SPACER, MICA
4-382-854-11 SCREW (M3X10), P, SW (+)
(IC1601,IC1602)

REF.NO.	PART NO.	DESCRIPTION			REMARK
	<CAPACITOR>				
C1101	1-126-767-11	ELECT	1000µF	20%	16V
C1102	1-126-964-11	ELECT	10µF	20%	50V
C1103	1-126-964-11	ELECT	10µF	20%	50V
C1104	1-126-964-11	ELECT	10µF	20%	50V
C1105	1-126-041-11	ELECT	2200µF	20%	35V
C1106	1-136-165-00	MYLAR	0.1µF	5%	50V
C1107	1-136-165-00	MYLAR	0.1µF	5%	50V
C1108	1-104-660-91	ELECT	47µF	20%	16V
C1109	1-104-660-91	ELECT	47µF	20%	16V
C1110	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1111	1-126-041-11	ELECT	2200µF	20%	35V
C1114	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1115	1-126-959-11	ELECT	0.47µF	20%	50V
C1116	1-126-933-11	ELECT	100µF	20%	16V
C1219	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1220	1-107-715-11	ELECT	22µF	20%	16V
C1221	1-137-150-11	MYLAR	0.01µF	5%	50V
C1222	1-126-961-11	ELECT	2.2µF	20%	50V
C1223	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1301	1-126-934-11	ELECT	220µF	20%	10V
C1302	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C1304	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1305	1-126-934-11	ELECT	220µF	20%	10V
C1306	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C1307	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C1308	1-126-933-11	ELECT	100µF	20%	16V
C1401	1-130-777-00	MYLAR	0.1µF	5%	63V
C1402	1-130-777-00	MYLAR	0.1µF	5%	63V
C1403	1-130-777-00	MYLAR	0.1µF	5%	63V
C1404	1-130-777-00	MYLAR	0.1µF	5%	63V
C1405	1-104-660-91	ELECT	47µF	20%	16V
C1409	1-136-165-00	MYLAR	0.1µF	5%	50V
C1410	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1411	1-126-933-11	ELECT	100µF	20%	16V
C1412	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1413	1-126-967-11	ELECT	47µF	20%	50V
C1414	1-126-967-11	ELECT	47µF	20%	50V
C1415	1-126-967-11	ELECT	47µF	20%	50V
C1416	1-126-967-11	ELECT	47µF	20%	50V
C1417	1-126-967-11	ELECT	47µF	20%	50V
C1418	1-126-967-11	ELECT	47µF	20%	50V
C1419	1-164-222-91	CERAMIC CHIP	0.22µF		25V
C1420	1-164-222-91	CERAMIC CHIP	0.22µF		25V
C1421	1-164-222-91	CERAMIC CHIP	0.22µF		25V
C1422	1-164-222-91	CERAMIC CHIP	0.22µF		25V
C1423	1-164-222-91	CERAMIC CHIP	0.22µF		25V
C1424	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1426	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C1427	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C1428	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C1429	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C1430	1-164-346-11	CERAMIC CHIP	1µF		16V
C1601	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1602	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1603	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1604	1-126-933-11	ELECT	100µF	20%	16V
C1605	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1606	1-126-933-11	ELECT	100µF	20%	16V
C1607	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1608	1-126-933-11	ELECT	100µF	20%	16V
C1610	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1611	1-126-916-11	ELECT	1000µF	20%	6.3V
C1612	1-126-935-11	ELECT	470µF	20%	10V
C1615	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C1616	1-126-916-11	ELECT	1000µF	20%	6.3V
C1617	1-126-935-11	ELECT	470µF	20%	10V
C1619	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
	<CONNECTOR>				
CN1001	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P			
CN1102 *	1-564-507-11	PLUG, CONNECTOR 4P			
CN1201	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P			
CN1301 *	1-564-508-11	PLUG, CONNECTOR 5P			
CN1302 *	1-764-333-11	PLUG, CONNECTOR 10P			
CN1404	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P			
CN1501	1-785-802-11	PIN, CONNECTOR (WITH PWB) 20P			
CN1502	1-785-802-11	PIN, CONNECTOR (WITH PWB) 20P			
CN1503 *	1-564-511-11	PLUG, CONNECTOR 8P			
CN1504 *	1-564-508-11	PLUG, CONNECTOR 5P			
CN1603 *	1-764-333-11	PLUG, CONNECTOR 10P			
CN1605	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
CN1606 *	1-564-508-11	PLUG, CONNECTOR 5P			
CN1661	1-695-915-11	TAB (CONTACT)			
CN1665	1-695-915-11	TAB (CONTACT)			
CN1666	1-695-915-11	TAB (CONTACT)			
CN1801	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P			
CN1901	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P			
	<COMPOSITION CIRCUIT BLOCK>				
CP1301	1-251-658-11	SPLITTER RF			
	<DIODE>				
D1101	8-719-988-61	DIODE 1SS355TE-17			
D1102	8-719-988-61	DIODE 1SS355TE-17			
D1103	8-719-988-61	DIODE 1SS355TE-17			
D1104	8-719-988-61	DIODE 1SS355TE-17			
D1105	8-719-914-43	DIODE DAN202K			
D1106	8-719-914-43	DIODE DAN202K			
D1107	8-719-402-92	DIODE MA3220M-TX			
D1108	8-719-988-61	DIODE 1SS355TE-17			
D1109	8-719-988-61	DIODE 1SS355TE-17			
D1110	8-719-402-92	DIODE MA3220M-TX			
D1111	8-719-402-92	DIODE MA3220M-TX			
D1112	8-719-402-92	DIODE MA3220M-TX			
D1201	8-719-914-43	DIODE DAN202K			
D1202	8-719-914-43	DIODE DAN202K			
D1203	8-719-988-61	DIODE 1SS355TE-17			

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D1204	8-719-914-43	DIODE DAN202K	
D1205	8-719-988-61	DIODE 1SS355TE-17	
D1206	8-719-988-61	DIODE 1SS355TE-17	
D1401	8-719-069-56	DIODE UDZSTE-176.2B	
D1402	8-719-069-56	DIODE UDZSTE-176.2B	
D1403	8-719-069-56	DIODE UDZSTE-176.2B	
D1404	8-719-069-56	DIODE UDZSTE-176.2B	
D1405	8-719-978-33	DIODE DTZ-TT11-6.8B	
D1406	8-719-914-43	DIODE DAN202K	
D1410	8-719-402-92	DIODE MA3220M-TX	
D1411	8-719-402-92	DIODE MA3220M-TX	
D1421	8-719-056-77	DIODE UDZ-TE-17-3.9B	
		<FILTER>	
FL1401	1-236-071-11	ENCAPSULATED COMPONENT	
		<IC>	
IC1101	8-759-190-89	IC TDA7265	
IC1401	8-752-072-94	IC CXA1875AM-T4	
IC1402	8-752-067-36	IC CXA1815S	
IC1601	8-759-069-28	IC PQ05RF11	
IC1602	8-759-054-12	IC PQ09RA1	
IC1603	8-759-520-49	IC PQ30RV21	
IC1604	8-759-520-49	IC PQ30RV21	
IC1605	8-759-069-28	IC PQ05RF11	
		<CHIP CONDUCTOR>	
JR1001	1-216-295-91	SHORT 0	
JR1002	1-216-295-91	SHORT 0	
JR1003	1-216-295-91	SHORT 0	
JR1004	1-216-295-91	SHORT 0	
JR1005	1-216-295-91	SHORT 0	
JR1007	1-216-295-91	SHORT 0	
JR1008	1-216-295-91	SHORT 0	
JR1015	1-216-295-91	SHORT 0	
JR1017	1-216-295-91	SHORT 0	
JR1018	1-216-295-91	SHORT 0	
JR1019	1-216-295-91	SHORT 0	
JR1021	1-216-295-91	SHORT 0	
JR1023	1-216-295-91	SHORT 0	
JR1024	1-216-295-91	SHORT 0	
JR1025	1-216-295-91	SHORT 0	
JR1027	1-216-295-91	SHORT 0	
JR1028	1-216-295-91	SHORT 0	
JR1029	1-216-295-91	SHORT 0	
JR1030	1-216-295-91	SHORT 0	
JR1031	1-216-295-91	SHORT 0	
JR1033	1-216-295-91	SHORT 0	
JR1601	1-216-295-91	SHORT 0	
		<COIL>	
L1301	1-408-603-31	INDUCTOR 10µH	
L1302	1-408-603-31	INDUCTOR 10µH	
L1303	1-408-603-31	INDUCTOR 10µH	
L1401	1-412-004-31	INDUCTOR CHIP 6.8µH	
L1402	1-412-004-31	INDUCTOR CHIP 6.8µH	
L1403	1-412-004-31	INDUCTOR CHIP 6.8µH	
		<TRANSISTOR>	
Q1101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1102	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1103	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1104	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1105	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1106	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1202	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1203	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1204	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1205	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1206	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1207	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1301	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1302	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1303	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1304	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1305	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1306	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1307	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1308	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1401	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1402	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1404	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1406	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1408	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1409	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1410	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1411	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1412	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1413	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1421	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q1422	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		<RESISTOR>	
R1102	1-216-097-11	RES-CHIP 100K 5% 1/10W	
R1103	1-216-025-11	RES-CHIP 100 5% 1/10W	
R1104	1-216-097-11	RES-CHIP 100K 5% 1/10W	
R1105	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R1106	1-216-089-91	RES-CHIP 47K 5% 1/10W	
R1107	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R1108	1-216-073-91	RES-CHIP 10K 5% 1/10W	
R1109	1-216-041-00	RES-CHIP 470 5% 1/10W	
R1110	1-216-073-91	RES-CHIP 10K 5% 1/10W	
R1111	1-216-041-00	RES-CHIP 470 5% 1/10W	
R1112	1-216-295-91	SHORT 0	
R1113	1-216-049-11	RES-CHIP 1K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1114	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1115	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1116	1-216-295-91	SHORT	0		
R1117	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1118	1-216-079-00	RES-CHIP	18K	5%	1/10W
R1119	1-216-079-00	RES-CHIP	18K	5%	1/10W
R1120	1-216-043-91	RES-CHIP	560	5%	1/10W
R1121	1-216-043-91	RES-CHIP	560	5%	1/10W
R1122	1-216-357-00	METAL OXIDE	4.7	5%	1W
R1123	1-249-381-11	CARBON	1	5%	1/4W
R1124	1-216-357-00	METAL OXIDE	4.7	5%	1W
R1125	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1127	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1128	1-249-417-11	CARBON	1K	5%	1/4W
R1131	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1201	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1211	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1212	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1213	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1214	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1215	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1216	1-216-097-11	RES-CHIP	100K	5%	1/10W
R1217	1-216-097-11	RES-CHIP	100K	5%	1/10W
R1218	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1219	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1220	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1221	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1222	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1223	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1224	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1231	1-216-295-91	SHORT	0		
R1232	1-216-295-91	SHORT	0		
R1233	1-216-295-91	SHORT	0		
R1234	1-216-295-91	SHORT	0		
R1301	1-216-041-00	RES-CHIP	470	5%	1/10W
R1303	1-216-025-11	RES-CHIP	100	5%	1/10W
R1304	1-216-025-11	RES-CHIP	100	5%	1/10W
R1305	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1306	1-216-025-11	RES-CHIP	100	5%	1/10W
R1307	1-216-041-00	RES-CHIP	470	5%	1/10W
R1308	1-216-075-00	RES-CHIP	12K	5%	1/10W
R1309	1-216-041-00	RES-CHIP	470	5%	1/10W
R1310	1-216-041-00	RES-CHIP	470	5%	1/10W
R1311	1-216-001-00	RES-CHIP	10	5%	1/10W
R1312	1-216-025-11	RES-CHIP	100	5%	1/10W
R1313	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R1314	1-216-041-00	RES-CHIP	470	5%	1/10W
R1315	1-216-041-00	RES-CHIP	470	5%	1/10W
R1317	1-216-041-00	RES-CHIP	470	5%	1/10W
R1318	1-216-043-91	RES-CHIP	560	5%	1/10W
R1319	1-216-025-11	RES-CHIP	100	5%	1/10W
R1320	1-216-041-00	RES-CHIP	470	5%	1/10W
R1321	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1322	1-216-025-11	RES-CHIP	100	5%	1/10W
R1323	1-216-025-11	RES-CHIP	100	5%	1/10W
R1324	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1325	1-216-041-00	RES-CHIP	470	5%	1/10W
R1326	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1327	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1328	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1329	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1330	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1331	1-216-043-91	RES-CHIP	560	5%	1/10W
R1332	1-216-295-91	SHORT	0		
R1333	1-216-295-91	SHORT	0		
R1401	1-216-029-00	RES-CHIP	150	5%	1/10W
R1402	1-216-039-00	RES-CHIP	390	5%	1/10W
R1403	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1404	1-216-025-11	RES-CHIP	100	5%	1/10W
R1405	1-216-025-11	RES-CHIP	100	5%	1/10W
R1406	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1407	1-216-025-11	RES-CHIP	100	5%	1/10W
R1408	1-216-025-11	RES-CHIP	100	5%	1/10W
R1409	1-216-025-11	RES-CHIP	100	5%	1/10W
R1410	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1411	1-216-025-11	RES-CHIP	100	5%	1/10W
R1412	1-216-025-11	RES-CHIP	100	5%	1/10W
R1413	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1414	1-216-025-11	RES-CHIP	100	5%	1/10W
R1416	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1417	1-216-017-91	RES-CHIP	47	5%	1/10W
R1418	1-216-041-00	RES-CHIP	470	5%	1/10W
R1420	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1422	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1423	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1424	1-216-017-91	RES-CHIP	47	5%	1/10W
R1425	1-216-041-00	RES-CHIP	470	5%	1/10W
R1426	1-216-093-91	RES-CHIP	68K	5%	1/10W
R1427	1-216-089-91	RES-CHIP	47K	5%	1/10W
R1428	1-208-817-11	METAL CHIP	30K	0.5%	1/10W
R1429	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R1430	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1431	1-216-017-91	RES-CHIP	47	5%	1/10W
R1432	1-216-041-00	RES-CHIP	470	5%	1/10W
R1442	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1443	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1444	1-216-025-11	RES-CHIP	100	5%	1/10W
R1445	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1446	1-216-025-11	RES-CHIP	100	5%	1/10W
R1447	1-216-025-11	RES-CHIP	100	5%	1/10W
R1448	1-216-025-11	RES-CHIP	100	5%	1/10W
R1449	1-216-025-11	RES-CHIP	100	5%	1/10W
R1450	1-216-017-91	RES-CHIP	47	5%	1/10W
R1451	1-216-017-91	RES-CHIP	47	5%	1/10W
R1452	1-216-295-91	SHORT	0		
R1453	1-216-295-91	SHORT	0		
R1454	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1456	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1457	1-216-025-11	RES-CHIP	100	5%	1/10W
R1458	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R1459	1-216-025-11	RES-CHIP	100	5%	1/10W
R1460	1-216-049-11	RES-CHIP	1K	5%	1/10W

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

A M

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1461	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1462	1-216-073-91	RES-CHIP	10K	5%	1/10W
R1463	1-216-017-91	RES-CHIP	47	5%	1/10W
R1464	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1465	1-216-017-91	RES-CHIP	47	5%	1/10W
R1466	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1467	1-216-017-91	RES-CHIP	47	5%	1/10W
R1468	1-216-041-00	RES-CHIP	470	5%	1/10W
R1469	1-216-358-11	METAL OXIDE	5.6	5%	1W
R1608	1-208-778-11	METAL CHIP	680	0.5%	1/10W
R1610	1-208-772-11	METAL CHIP	390	0.5%	1/10W
R1611	1-208-772-11	METAL CHIP	390	0.5%	1/10W
R1612	1-216-025-11	RES-CHIP	100	5%	1/10W
R1613	1-208-772-11	METAL CHIP	390	0.5%	1/10W
R1614	1-216-073-91	RES-CHIP	10K	5%	1/10W
		<RELAY>			
RY1101	1-755-028-11	RELAY			
RY1102	1-755-028-11	RELAY			
		<TUNER>			
TU1301⚠	1-693-340-23	TUNER/VIF			
TU1302⚠	1-693-340-23	TUNER/VIF			

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* A-1306-599-A M BOARD, COMPLETE
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		<CAPACITOR>			
C9100	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C9101	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C9102	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C9104	1-126-933-11	ELECT	100µF	20%	16V
C9105	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9106	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C9108	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C9109	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C9110	1-110-501-11	CERAMIC CHIP	0.33µF	10%	16V
C9111	1-164-344-11	CERAMIC CHIP	0.068µF	10%	25V
C9112	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9113	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9114	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9115	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C9116	1-110-501-11	CERAMIC CHIP	0.33µF	10%	16V
C9117	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9118	1-104-660-91	ELECT	47µF	20%	16V
C9119	1-163-259-91	CERAMIC CHIP	220pF	5%	50V
C9121	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C9122	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C9123	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9124	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9125	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9126	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C9127	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C9128	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C9129	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C9130	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C9131	1-163-239-11	CERAMIC CHIP	33pF	5%	50V
C9132	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9133	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9134	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9135	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C9400	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C9501	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9503	1-126-964-11	ELECT	10µF	20%	50V
C9504	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9505	1-126-933-11	ELECT	100µF	20%	16V
C9506	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C9507	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C9508	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C9509	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C9510	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C9511	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9512	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9513	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C9514	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C9515	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C9516	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C9517	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C9518	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C9519	1-126-964-11	ELECT	10µF	20%	50V
		<CONNECTOR>			
CN9001	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P			
		<DIODE>			
D9100	8-719-988-61	DIODE 1SS355TE-17			
D9101	8-719-988-61	DIODE 1SS355TE-17			
D9102	8-719-988-61	DIODE 1SS355TE-17			
D9103	8-719-988-61	DIODE 1SS355TE-17			
D9104	8-719-978-33	DIODE DTZ-TT11-6.8B			
D9105	8-719-988-61	DIODE 1SS355TE-17			
D9107	8-719-025-31	DIODE 02CZ5.6-TE85L			
D9108	8-719-914-44	DIODE DAP202K			
D9109	8-719-105-91	DIODE RD5.6M-B2			
D9110	8-719-914-43	DIODE DAN202K			
D9111	8-719-105-91	DIODE RD5.6M-B2			
		<FILTER>			
FL9101	1-236-071-11	ENCAPSULATED COMPONENT			
FL9500	1-236-071-11	ENCAPSULATED COMPONENT			
FL9501	1-236-071-11	ENCAPSULATED COMPONENT			
		<IC>			
IC9100	8-759-988-13	IC LM393PS			

REF.NO.	PART NO.	DESCRIPTION			REMARK
IC9103	8-759-488-29	IC TC7W66FU(TE12R)			
IC9104	8-759-259-18	IC MB3793-42PNF			
IC9105	8-759-686-50	IC SAB-C161PI-LM			
IC9107	8-759-826-53	IC IS62C1024L-70Q			
IC9108	8-759-564-06	IC M24C32-MN6T			
IC9109	8-759-829-47	IC M27C800-100K1-RE201			
IC9110	8-759-009-22	IC MC14094BF			
IC9111	8-759-242-72	IC TC7W00F(TE12R)			
IC9112	8-759-523-02	IC TC74HC4053AFT(EL)			
IC9400	8-759-692-18	IC M29F040B-70K1T			
IC9500	8-759-243-62	IC TC74AC32F			
IC9501	8-759-666-17	IC MSM5116400D-60SJR1			
IC9502	8-759-665-84	IC SDA5275-3PC02-22			
		<COIL>			
L9400	1-412-029-11	INDUCTOR CHIP	10µH		
L9401	1-412-029-11	INDUCTOR CHIP	10µH		
		<TRANSISTOR>			
Q9100	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q9101	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q9102	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q9103	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q9104	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q9105	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q9106	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q9110	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q9500	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q9501	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q9502	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q9503	1-801-806-11	TRANSISTOR DTC144EKA			
Q9504	1-801-806-11	TRANSISTOR DTC144EKA			
		<RESISTOR>			
R9100	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9101	1-216-033-00	RES-CHIP	220	5%	1/10W
R9102	1-216-033-00	RES-CHIP	220	5%	1/10W
R9103	1-216-025-11	RES-CHIP	100	5%	1/10W
R9104	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9105	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9107	1-216-025-11	RES-CHIP	100	5%	1/10W
R9108	1-216-025-11	RES-CHIP	100	5%	1/10W
R9109	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9110	1-216-081-00	RES-CHIP	22K	5%	1/10W
R9111	1-216-025-11	RES-CHIP	100	5%	1/10W
R9112	1-216-025-11	RES-CHIP	100	5%	1/10W
R9113	1-216-033-00	RES-CHIP	220	5%	1/10W
R9114	1-216-083-00	RES-CHIP	27K	5%	1/10W
R9115	1-216-081-00	RES-CHIP	22K	5%	1/10W
R9116	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9117	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9119	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9120	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9121	1-216-017-91	RES-CHIP	47	5%	1/10W
R9122	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9123	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9124	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9127	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9129	1-216-025-11	RES-CHIP	100	5%	1/10W
R9131	1-216-025-11	RES-CHIP	100	5%	1/10W
R9132	1-216-017-91	RES-CHIP	47	5%	1/10W
R9133	1-216-017-91	RES-CHIP	47	5%	1/10W
R9134	1-216-025-11	RES-CHIP	100	5%	1/10W
R9135	1-216-025-11	RES-CHIP	100	5%	1/10W
R9136	1-216-025-11	RES-CHIP	100	5%	1/10W
R9138	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9140	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9141	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9142	1-216-041-00	RES-CHIP	470	5%	1/10W
R9143	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9144	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9145	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9146	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9147	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9149	1-216-025-11	RES-CHIP	100	5%	1/10W
R9150	1-216-025-11	RES-CHIP	100	5%	1/10W
R9151	1-216-025-11	RES-CHIP	100	5%	1/10W
R9153	1-216-025-11	RES-CHIP	100	5%	1/10W
R9159	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9161	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9162	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9164	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9166	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9168	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9169	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9172	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R9173	1-216-295-91	SHORT	0		
R9174	1-216-025-11	RES-CHIP	100	5%	1/10W
R9175	1-216-025-11	RES-CHIP	100	5%	1/10W
R9176	1-216-025-11	RES-CHIP	100	5%	1/10W
R9177	1-216-025-11	RES-CHIP	100	5%	1/10W
R9178	1-216-025-11	RES-CHIP	100	5%	1/10W
R9184	1-216-025-11	RES-CHIP	100	5%	1/10W
R9185	1-216-025-11	RES-CHIP	100	5%	1/10W
R9186	1-216-025-11	RES-CHIP	100	5%	1/10W
R9187	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R9188	1-216-025-11	RES-CHIP	100	5%	1/10W
R9189	1-216-025-11	RES-CHIP	100	5%	1/10W
R9191	1-216-025-11	RES-CHIP	100	5%	1/10W
R9192	1-216-025-11	RES-CHIP	100	5%	1/10W
R9193	1-216-097-11	RES-CHIP	100K	5%	1/10W
R9194	1-216-097-11	RES-CHIP	100K	5%	1/10W
R9195	1-216-097-11	RES-CHIP	100K	5%	1/10W
R9196	1-216-081-00	RES-CHIP	22K	5%	1/10W
R9197	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9198	1-216-039-00	RES-CHIP	390	5%	1/10W
R9199	1-216-039-00	RES-CHIP	390	5%	1/10W
R9200	1-216-017-91	RES-CHIP	47	5%	1/10W
R9201	1-216-039-00	RES-CHIP	390	5%	1/10W

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R9202	1-216-017-91	RES-CHIP	47	5%	1/10W
R9203	1-216-017-91	RES-CHIP	47	5%	1/10W
R9501	1-216-017-91	RES-CHIP	47	5%	1/10W
R9502	1-216-295-91	SHORT	0		
R9503	1-216-295-91	SHORT	0		
R9504	1-216-041-00	RES-CHIP	470	5%	1/10W
R9505	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R9506	1-216-073-91	RES-CHIP	10K	5%	1/10W
R9507	1-216-097-11	RES-CHIP	100K	5%	1/10W
R9509	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9510	1-216-017-91	RES-CHIP	47	5%	1/10W
R9511	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9512	1-216-017-91	RES-CHIP	47	5%	1/10W
R9513	1-216-017-91	RES-CHIP	47	5%	1/10W
R9514	1-216-017-91	RES-CHIP	47	5%	1/10W
R9515	1-216-295-91	SHORT	0		
R9516	1-216-295-91	SHORT	0		
R9517	1-216-295-91	SHORT	0		
R9518	1-216-049-11	RES-CHIP	1K	5%	1/10W
R9519	1-216-039-00	RES-CHIP	390	5%	1/10W
R9520	1-216-039-00	RES-CHIP	390	5%	1/10W
R9521	1-216-039-00	RES-CHIP	390	5%	1/10W
R9522	1-216-295-91	SHORT	0		
R9523	1-216-295-91	SHORT	0		
R9524	1-216-295-91	SHORT	0		
R9525	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9526	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9527	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R9528	1-216-025-11	RES-CHIP	100	5%	1/10W
R9529	1-216-025-11	RES-CHIP	100	5%	1/10W
R9530	1-216-025-11	RES-CHIP	100	5%	1/10W
R9532	1-216-295-91	SHORT	0		
R9533	1-216-295-91	SHORT	0		

<NETWORK RESISTOR>

RB9101 1-239-412-11 NETWORK RESISTOR (CHIP) 100

<CRYSTAL>

X9101 1-781-107-21 VIBRATOR, SERAMIC (16MHz)
X9500 1-760-551-21 VIBRATOR, CERAMIC (20.480MHz)

****

* A-1348-063-A E BOARD, COMPLETE
****

<CAPACITOR>

C4304	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4306	1-126-964-11	ELECT	10µF	20%	50V
C4307	1-163-137-00	CERAMIC CHIP	680pF	5%	50V
C4311	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4312	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4313	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4316	1-104-664-11	ELECT	47µF	20%	25V
C4317	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4318	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4319	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4324	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4325	1-163-093-00	CERAMIC CHIP	10pF	5%	50V
C4329	1-126-963-11	ELECT	4.7µF	20%	50V
C4330	1-137-581-11	FILM	0.1µF	5%	100V
C4331	1-126-959-11	ELECT	0.47µF	20%	50V
C4332	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4333	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4334	1-126-967-11	ELECT	47µF	20%	50V
C4336	1-126-967-11	ELECT	47µF	20%	50V
C4338	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4340	1-126-967-11	ELECT	47µF	20%	50V
C4342	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C4343	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4344	1-126-960-11	ELECT	1µF	20%	50V
C4345	1-126-967-11	ELECT	47µF	20%	50V
C4346	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4347	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4348	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4349	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4350	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4351	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C4352	1-126-967-11	ELECT	47µF	20%	50V
C4353	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C4354	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C4355	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4356	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4357	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4358	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4359	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C4360	1-126-966-11	ELECT	33µF	20%	50V
C4362	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4363	1-126-967-11	ELECT	47µF	20%	50V
C4364	1-126-967-11	ELECT	47µF	20%	50V
C4368	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4369	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4370	1-126-967-11	ELECT	47µF	20%	50V
C4371	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4372	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C4373	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4374	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4377	1-126-960-11	ELECT	1µF	20%	50V
C4382	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4383	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4384	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4601	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V

<CONNECTOR>

CN4101 1-695-301-11 CONNECTOR, BOARD TO BOARD 40P
CN4500 * 1-564-512-11 PLUG, CONNECTOR 9P
CN4502 * 1-564-507-11 PLUG, CONNECTOR 4P

E

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<DIODE>			
D4304	8-719-069-60	DIODE UDZSTE-179.1B			
D4305	8-719-069-60	DIODE UDZSTE-179.1B			
D4601	8-719-401-63	DIODE MA3062M-TX			
D4602	8-719-914-43	DIODE DAN202K			
D4603	8-719-914-43	DIODE DAN202K			
		<FERRITE BEAD>			
FB4387	1-216-295-91	SHORT	0		
FB4388	1-216-295-91	SHORT	0		
FB4389	1-216-295-91	SHORT	0		
		<IC>			
IC4301	8-752-090-88	IC CXA2100AQ-TL			
		<CHIP CONDUCTOR>			
JR4301	1-216-295-91	SHORT	0		
JR4302	1-216-037-00	RES-CHIP	330	5%	1/10W
		<COIL>			
L4301	1-412-029-11	INDUCTOR CHIP	10µH		
L4302	1-412-029-11	INDUCTOR CHIP	10µH		
L4303	1-412-029-11	INDUCTOR CHIP	10µH		
L4304	1-412-029-11	INDUCTOR CHIP	10µH		
L4305	1-412-029-11	INDUCTOR CHIP	10µH		
L4306	1-412-029-11	INDUCTOR CHIP	10µH		
L4308	1-412-031-11	INDUCTOR CHIP	47µH		
L4309	1-412-031-11	INDUCTOR CHIP	47µH		
		<TRANSISTOR>			
Q4301	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q4302	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q4303	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q4304	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q4307	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q4308	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q4310	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q4316	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q4317	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q4318	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q4320	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q4321	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q4322	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q4601	1-801-806-11	TRANSISTOR DTC144EKA			
Q4602	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		<RESISTOR>			
R4301	1-216-025-11	RES-CHIP	100	5%	1/10W
R4302	1-216-025-11	RES-CHIP	100	5%	1/10W
R4303	1-216-025-11	RES-CHIP	100	5%	1/10W
R4304	1-216-025-11	RES-CHIP	100	5%	1/10W
R4305	1-216-025-11	RES-CHIP	100	5%	1/10W
R4306	1-216-025-11	RES-CHIP	100	5%	1/10W
R4307	1-216-295-91	SHORT	0		
R4309	1-216-295-91	SHORT	0		
R4313	1-216-039-00	RES-CHIP	390	5%	1/10W
R4314	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4315	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R4316	1-216-037-00	RES-CHIP	330	5%	1/10W
R4317	1-216-047-91	RES-CHIP	820	5%	1/10W
R4318	1-249-411-11	CARBON	330	5%	1/4W
R4319	1-216-073-91	RES-CHIP	10K	5%	1/10W
R4320	1-216-689-11	RES-CHIP	39K	5%	1/10W
R4321	1-216-105-91	RES-CHIP	220K	5%	1/10W
R4322	1-216-073-91	RES-CHIP	10K	5%	1/10W
R4323	1-216-091-00	RES-CHIP	56K	5%	1/10W
R4324	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R4332	1-216-025-11	RES-CHIP	100	5%	1/10W
R4334	1-216-025-11	RES-CHIP	100	5%	1/10W
R4335	1-216-025-11	RES-CHIP	100	5%	1/10W
R4336	1-216-025-11	RES-CHIP	100	5%	1/10W
R4337	1-216-025-11	RES-CHIP	100	5%	1/10W
R4339	1-249-409-11	CARBON	220	5%	1/4W
R4340	1-216-111-00	RES-CHIP	390K	5%	1/10W
R4341	1-216-295-91	SHORT	0		
R4343	1-216-025-11	RES-CHIP	100	5%	1/10W
R4344	1-216-025-11	RES-CHIP	100	5%	1/10W
R4345	1-216-075-00	RES-CHIP	12K	5%	1/10W
R4346	1-208-812-11	METAL CHIP	18K	0.5%	1/10W
R4347	1-216-025-11	RES-CHIP	100	5%	1/10W
R4348	1-216-025-11	RES-CHIP	100	5%	1/10W
R4349	1-216-033-00	RES-CHIP	220	5%	1/10W
R4350	1-216-025-11	RES-CHIP	100	5%	1/10W
R4352	1-216-073-91	RES-CHIP	10K	5%	1/10W
R4354	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R4355	1-216-295-91	SHORT	0		
R4357	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
R4358	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W
R4359	1-216-041-00	RES-CHIP	470	5%	1/10W
R4360	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R4361	1-216-133-91	RES-CHIP	3.3M	5%	1/10W
R4363	1-216-025-11	RES-CHIP	100	5%	1/10W
R4365	1-216-017-91	RES-CHIP	47	5%	1/10W
R4366	1-216-017-91	RES-CHIP	47	5%	1/10W
R4367	1-216-017-91	RES-CHIP	47	5%	1/10W
R4370	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4372	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4375	1-216-033-00	RES-CHIP	220	5%	1/10W
R4377	1-216-033-00	RES-CHIP	220	5%	1/10W
R4380	1-216-073-91	RES-CHIP	10K	5%	1/10W
R4382	1-216-073-91	RES-CHIP	10K	5%	1/10W
R4384	1-216-025-11	RES-CHIP	100	5%	1/10W
R4385	1-216-290-00	RES-CHIP	6.8M	5%	1/8W
R4387	1-216-017-91	RES-CHIP	47	5%	1/10W
R4388	1-216-017-91	RES-CHIP	47	5%	1/10W
R4389	1-216-017-91	RES-CHIP	47	5%	1/10W
R4393	1-216-025-11	RES-CHIP	100	5%	1/10W

E S

REF.NO.	PART NO.	DESCRIPTION			REMARK
R4395	1-216-295-91	SHORT	0		
R4396	1-216-295-91	SHORT	0		
R4398	1-216-025-11	RES-CHIP	100	5%	1/10W
R4504	1-216-025-11	RES-CHIP	100	5%	1/10W
R4516	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4517	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4518	1-216-025-11	RES-CHIP	100	5%	1/10W
R4519	1-216-025-11	RES-CHIP	100	5%	1/10W
R4520	1-216-025-11	RES-CHIP	100	5%	1/10W
R4521	1-216-025-11	RES-CHIP	100	5%	1/10W
R4522	1-216-025-11	RES-CHIP	100	5%	1/10W
R4523	1-216-025-11	RES-CHIP	100	5%	1/10W
R4524	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4601	1-216-286-00	RES-CHIP	4.7M	5%	1/8W
R4602	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4603	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
		<CRYSTAL>			
X4300	1-767-127-11	VIBRATOR, CERAMIC (503.5MHz)			

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*	A-1394-969-A	S BOARD, COMPLETE			

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		<CAPACITOR>			
C4701	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C4702	1-163-241-11	CERAMIC CHIP	39pF	5%	50V
C4708	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V
C4709	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V
C4710	1-104-660-91	ELECT	47µF	20%	16V
C4711	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4712	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4713	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4714	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C4715	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C4716	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C4717	1-110-501-11	CERAMIC CHIP	0.33µF	10%	16V
C4718	1-164-506-11	CERAMIC CHIP	4.7µF		16V
C4719	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4722	1-104-660-91	ELECT	47µF	20%	16V
C4723	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4727	1-164-506-11	CERAMIC CHIP	4.7µF		16V
C4728	1-165-319-11	CERAMIC CHIP	0.1µF		50V
C4729	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C4731	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C4732	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C4735	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C4736	1-126-964-11	ELECT	10µF	20%	50V
C4737	1-126-964-11	ELECT	10µF	20%	50V
C4738	1-126-933-11	ELECT	100µF	20%	16V
C4739	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4740	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C4741	1-126-933-11	ELECT	100µF	20%	16V
C4742	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C4743	1-104-660-91	ELECT	47µF	20%	16V
C4744	1-126-964-11	ELECT	10µF	20%	50V
C4745	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C4746	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C4747	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C4748	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C4751	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C4752	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C4755	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C4756	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C4757	1-107-682-11	CERAMIC CHIP	1µF	10%	16V
C4758	1-107-682-11	CERAMIC CHIP	1µF	10%	16V
C4759	1-107-682-11	CERAMIC CHIP	1µF	10%	16V
C4761	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C4762	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C4763	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C4764	1-104-660-91	ELECT	47µF	20%	16V
C4766	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C4767	1-163-007-11	CERAMIC CHIP	680pF	10%	50V
C4768	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C4769	1-163-007-11	CERAMIC CHIP	680pF	10%	50V
		<FILTER>			
CF4701	1-781-328-21	TRAP, CERAMIC (6.5MHZ)			
CF4702	1-760-106-11	FILTER, CERAMIC (5.5MHz)			
CF4703	1-567-100-00	FILTER, CERAMIC (6.0MHz)			
CF4704	1-760-450-21	FILTER, CERAMIC (6.5MHz)			
		<CONNECTOR>			
CN4701	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P			
		<DIODE>			
D4702	8-719-083-82	DIODE UDZS-TE17-12B			
D4703	8-719-083-82	DIODE UDZS-TE17-12B			
D4704	8-719-047-16	DIODE BAS216			
D4705	8-719-421-57	DIODE MA73-TX			
D4706	8-719-421-57	DIODE MA73-TX			
D4707	8-719-421-57	DIODE MA73-TX			
		<FERRITE BEAD>			
FB4701	1-414-235-22	INDUCTOR CHIP		0µH	
		<FILTER>			
FL4701	1-233-764-21	FILTER			
FL4704	1-236-071-11	ENCAPSULATED COMPONENT			
FL4705	1-236-071-11	ENCAPSULATED COMPONENT			
		<IC>			
IC4702	8-759-654-42	IC MSP3410D-C5QA-B4			
IC4703	8-759-701-36	IC NJM3403AM			

REF.NO.	PART NO.	DESCRIPTION			REMARK
IC4704	8-759-478-90	IC U2861B-MFP-G3			
IC4705	8-752-072-94	IC CXA1875AM-T4			
		<COIL>			
L4701	1-414-183-41	INDUCTOR	10µH		
L4702	1-414-189-31	INDUCTOR	100µH		
L4703	1-414-189-31	INDUCTOR	100µH		
		<TRANSISTOR>			
Q4701	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q4702	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q4703	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q4706	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q4707	1-801-806-11	TRANSISTOR DTC144EKA			
Q4708	1-801-806-11	TRANSISTOR DTC144EKA			
Q4709	1-801-806-11	TRANSISTOR DTC144EKA			
Q4710	1-801-806-11	TRANSISTOR DTC144EKA			
Q4711	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q4712	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
		<RESISTOR>			
R4701	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R4702	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4703	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4704	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R4706	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4707	1-216-037-00	RES-CHIP	330	5%	1/10W
R4709	1-216-295-91	SHORT	0		
R4710	1-216-025-11	RES-CHIP	100	5%	1/10W
R4711	1-216-025-11	RES-CHIP	100	5%	1/10W
R4712	1-216-025-11	RES-CHIP	100	5%	1/10W
R4715	1-216-025-11	RES-CHIP	100	5%	1/10W
R4720	1-216-295-91	SHORT	0		
R4725	1-216-025-11	RES-CHIP	100	5%	1/10W
R4726	1-216-295-91	SHORT	0		
R4727	1-216-025-11	RES-CHIP	100	5%	1/10W
R4730	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4731	1-216-295-91	SHORT	0		
R4732	1-216-025-11	RES-CHIP	100	5%	1/10W
R4733	1-216-025-11	RES-CHIP	100	5%	1/10W
R4734	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R4737	1-216-295-91	SHORT	0		
R4738	1-216-295-91	SHORT	0		
R4739	1-216-295-91	SHORT	0		
R4740	1-216-295-91	SHORT	0		
R4741	1-216-025-11	RES-CHIP	100	5%	1/10W
R4742	1-216-025-11	RES-CHIP	100	5%	1/10W
R4743	1-216-025-11	RES-CHIP	100	5%	1/10W
R4747	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R4748	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R4749	1-216-089-91	RES-CHIP	47K	5%	1/10W
R4752	1-216-043-91	RES-CHIP	560	5%	1/10W
R4757	1-216-089-91	RES-CHIP	47K	5%	1/10W
R4758	1-216-089-91	RES-CHIP	47K	5%	1/10W
R4759	1-216-089-91	RES-CHIP	47K	5%	1/10W
R4760	1-216-089-91	RES-CHIP	47K	5%	1/10W
R4761	1-216-089-91	RES-CHIP	47K	5%	1/10W
R4769	1-216-025-11	RES-CHIP	100	5%	1/10W
R4773	1-216-295-91	SHORT	0		
R4777	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4778	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4779	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R4780	1-216-295-91	SHORT	0		
R4781	1-216-035-00	RES-CHIP	270	5%	1/10W
R4782	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4783	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4784	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4785	1-216-295-91	SHORT	0		
R4786	1-216-043-91	RES-CHIP	560	5%	1/10W
R4787	1-216-043-91	RES-CHIP	560	5%	1/10W
R4788	1-216-043-91	RES-CHIP	560	5%	1/10W
R4789	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R4790	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R4791	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R4792	1-216-025-11	RES-CHIP	100	5%	1/10W
R4793	1-216-025-11	RES-CHIP	100	5%	1/10W
R4794	1-216-295-91	SHORT	0		
R4796	1-216-295-91	SHORT	0		
R4797	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4798	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4799	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4800	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4801	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4802	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
		<CRYSTAL>			
X4701	1-781-148-21	VIBRATOR, CRYSTAL (18.432MHz)			
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	* A-1395-023-A	J BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C8301	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C8302	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8305	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8306	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C8308	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8309	1-126-961-11	ELECT	2.2µF	20%	50V
C8311	1-104-660-91	ELECT	47µF	20%	16V
C8313	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8314	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8318	1-104-660-91	ELECT	47µF	20%	16V
C8319	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8321	1-104-660-91	ELECT	47µF	20%	16V
C8322	1-163-227-11	CERAMIC CHIP	10pF	0.5pF	50V
C8323	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8324	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C8325	1-126-964-11	ELECT	10µF	20%	50V
C8327	1-107-682-11	CERAMIC CHIP	1µF	10%	16V
C8329	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8331	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8335	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8336	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8337	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8338	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8345	1-107-682-11	CERAMIC CHIP	1µF	10%	16V
C8346	1-126-963-11	ELECT	4.7µF	20%	50V
C8347	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8348	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8349	1-104-660-91	ELECT	47µF	20%	16V
C8350	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8351	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8352	1-104-660-91	ELECT	47µF	20%	16V
C8353	1-164-346-11	CERAMIC CHIP	1µF		16V
C8354	1-164-346-11	CERAMIC CHIP	1µF		16V
C8355	1-126-935-11	ELECT	470µF	20%	16V
C8356	1-126-933-11	ELECT	100µF	20%	16V
C8357	1-126-933-11	ELECT	100µF	20%	16V
C8358	1-126-933-11	ELECT	100µF	20%	16V
C8359	1-126-933-11	ELECT	100µF	20%	16V
C8360	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8361	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8401	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C8402	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C8403	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8404	1-126-961-11	ELECT	2.2µF	20%	50V
C8405	1-104-660-91	ELECT	47µF	20%	16V
C8406	1-104-660-91	ELECT	47µF	20%	16V
C8408	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8410	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8411	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8414	1-104-660-91	ELECT	47µF	20%	16V
C8415	1-163-227-11	CERAMIC CHIP	10pF	0.5pF	50V
C8416	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8417	1-107-682-11	CERAMIC CHIP	1µF	10%	16V
C8418	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8419	1-126-964-11	ELECT	10µF	20%	50V
C8422	1-126-935-11	ELECT	470µF	20%	16V
C8423	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8424	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8427	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8431	1-107-715-11	ELECT	22µF	20%	25V
C8437	1-126-963-11	ELECT	4.7µF	20%	50V
C8441	1-163-227-11	CERAMIC CHIP	10pF	0.5pF	50V
C8442	1-163-227-11	CERAMIC CHIP	10pF	0.5pF	50V
C8444	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8445	1-163-117-00	CERAMIC CHIP	100pF	5%	50V
C8446	1-163-117-00	CERAMIC CHIP	100pF	5%	50V
C8447	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8448	1-126-933-11	ELECT	100µF	20%	16V
C8449	1-126-933-11	ELECT	100µF	20%	16V
C8450	1-126-935-11	ELECT	470µF	20%	16V
C8451	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8452	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8453	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8454	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8455	1-126-964-11	ELECT	10µF	20%	50V
C8456	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8457	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8458	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8459	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8460	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8461	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8462	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8463	1-104-660-91	ELECT	47µF	20%	16V
C8464	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8465	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8466	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8470	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8479	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8486	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8491	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8492	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8493	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8494	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8495	1-126-964-11	ELECT	10µF	20%	50V
C8497	1-104-660-91	ELECT	47µF	20%	16V
C8501	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8502	1-104-660-91	ELECT	47µF	20%	16V
C8503	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8504	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8505	1-126-933-11	ELECT	100µF	20%	16V
C8506	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C8507	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8508	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8509	1-126-933-11	ELECT	100µF	20%	16V
C8510	1-104-660-91	ELECT	47µF	20%	16V
C8511	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8512	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8513	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8514	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8515	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8516	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8517	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8518	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8519	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8520	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8521	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8524	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8525	1-104-660-91	ELECT	47µF	20%	16V
C8526	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8601	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8602	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8603	1-104-660-91	ELECT	47µF	20%	16V
C8604	1-104-660-91	ELECT	47µF	20%	16V
C8605	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8606	1-104-660-91	ELECT	47µF	20%	16V
C8607	1-126-933-11	ELECT	100µF	20%	16V
C8608	1-104-660-91	ELECT	47µF	20%	16V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C8609	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8613	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8614	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8615	1-163-237-11	CERAMIC CHIP	27pF	5%	50V
C8616	1-104-660-91	ELECT	47µF	20%	16V
C8618	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8620	1-104-660-91	ELECT	47µF	20%	16V
C8621	1-104-660-91	ELECT	47µF	20%	16V
C8622	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8623	1-104-660-91	ELECT	47µF	20%	16V
C8624	1-104-660-91	ELECT	47µF	20%	16V
C8625	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8627	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8628	1-104-660-91	ELECT	47µF	20%	16V
C8629	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8631	1-104-660-91	ELECT	47µF	20%	16V
C8632	1-104-660-91	ELECT	47µF	20%	16V
C8635	1-163-038-91	CERAMIC CHIP	0.1µF		25V
C8636	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C8638	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8639	1-164-690-91	CERAMIC CHIP	0.0022µF	5%	50V
C8700	1-126-964-11	ELECT	10µF	20%	50V
C8701	1-104-660-91	ELECT	47µF	20%	16V
C8702	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C8703	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8704	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8705	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8706	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C8707	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C8708	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8709	1-126-964-11	ELECT	10µF	20%	50V
C8710	1-126-933-11	ELECT	100µF	20%	16V
C8805	1-163-253-11	CERAMIC CHIP	120pF	5%	50V
C8806	1-163-249-11	CERAMIC CHIP	82pF	5%	50V
C8807	1-163-249-11	CERAMIC CHIP	82pF	5%	50V
C8808	1-163-227-11	CERAMIC CHIP	10pF	0.5pF	50V
C8811	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8812	1-104-664-11	ELECT	47µF	20%	25V
C8814	1-126-235-11	ELECT	100µF	20%	16V
C8815	1-163-253-11	CERAMIC CHIP	120pF	5%	50V
C8816	1-163-249-11	CERAMIC CHIP	82pF	5%	50V
C8817	1-163-249-11	CERAMIC CHIP	82pF	5%	50V
C8818	1-163-227-11	CERAMIC CHIP	10pF	0.5pF	50V
C8819	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8820	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C8821	1-104-664-11	ELECT	47µF	20%	25V
C8822	1-115-340-11	CERAMIC CHIP	0.22µF	10%	25V
C8823	1-126-933-11	ELECT	100µF	20%	16V
C8824	1-126-933-11	ELECT	100µF	20%	16V
C8825	1-126-933-11	ELECT	100µF	20%	16V
C8900	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C8901	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C8902	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C8903	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C8904	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C8905	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C8906	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C8907	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C8908	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C8909	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C8910	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C8911	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C8912	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C8913	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C8914	1-104-660-91	ELECT	47µF	20%	16V
C8915	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C8916	1-126-933-11	ELECT	100µF	20%	16V
C8917	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C8918	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C8919	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8920	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8921	1-104-660-91	ELECT	47µF	20%	16V
C8922	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8923	1-104-660-91	ELECT	47µF	20%	16V
C8924	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8925	1-104-660-91	ELECT	47µF	20%	16V
C8926	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8927	1-104-660-91	ELECT	47µF	20%	16V
C8928	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8929	1-104-660-91	ELECT	47µF	20%	16V
C8930	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8931	1-104-660-91	ELECT	47µF	20%	16V
C8932	1-164-505-11	CERAMIC CHIP	2.2µF		16V
C8933	1-163-241-11	CERAMIC CHIP	39pF	5%	50V
C8934	1-163-241-11	CERAMIC CHIP	39pF	5%	50V
C8935	1-163-241-11	CERAMIC CHIP	39pF	5%	50V

<CONNECTOR>

CN8101	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P
CN8900	1-695-549-11	SOCKET, PIN 21P (AV 1)
CN8901	1-695-549-11	SOCKET, PIN 21P (AV 2)
CN8902	1-695-549-11	SOCKET, PIN 21P (AV 3)
CN8903 *	1-564-526-31	PLUG, CONNECTOR 11P

<DIODE>

D8301	8-719-083-60	DIODE UDZSTE-174.7B
D8302	8-719-083-60	DIODE UDZSTE-174.7B
D8450	8-719-083-82	DIODE UDZS-TE17-12B
D8451	8-719-083-82	DIODE UDZS-TE17-12B
D8601	8-719-041-97	DIODE MA113-(TX)
D8900	8-719-056-85	DIODE UDZ-TE-17-8.2B
D8901	8-719-056-85	DIODE UDZ-TE-17-8.2B
D8902	8-719-056-85	DIODE UDZ-TE-17-8.2B
D8903	8-719-056-85	DIODE UDZ-TE-17-8.2B
D8904	8-719-056-85	DIODE UDZ-TE-17-8.2B
D8905	8-719-056-85	DIODE UDZ-TE-17-8.2B
D8906	8-719-056-85	DIODE UDZ-TE-17-8.2B
D8907	8-719-083-82	DIODE UDZS-TE17-12B
D8908	8-719-056-85	DIODE UDZ-TE-17-8.2B
D8909	8-719-056-85	DIODE UDZ-TE-17-8.2B

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D8910	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8911	8-719-056-85	DIODE UDZ-TE-17-8.2B	
D8912	8-719-083-82	DIODE UDZS-TE17-12B	
D8913	8-719-083-82	DIODE UDZS-TE17-12B	
D8914	8-719-083-82	DIODE UDZS-TE17-12B	
D8915	8-719-083-82	DIODE UDZS-TE17-12B	
D8916	8-719-083-82	DIODE UDZS-TE17-12B	
D8917	8-719-083-82	DIODE UDZS-TE17-12B	
D8918	8-719-978-33	DIODE DTZ-TT11-6.8B	
D8919	8-719-978-33	DIODE DTZ-TT11-6.8B	
D8920	8-719-978-33	DIODE DTZ-TT11-6.8B	
D8921	8-719-978-33	DIODE DTZ-TT11-6.8B	
D8922	8-719-083-82	DIODE UDZS-TE17-12B	
D8923	8-719-083-82	DIODE UDZS-TE17-12B	
D8924	8-719-083-82	DIODE UDZS-TE17-12B	
D8925	8-719-083-82	DIODE UDZS-TE17-12B	
D8926	8-719-083-82	DIODE UDZS-TE17-12B	
D8927	8-719-083-82	DIODE UDZS-TE17-12B	
D8928	8-719-083-82	DIODE UDZS-TE17-12B	
D8929	8-719-083-82	DIODE UDZS-TE17-12B	
D8930	8-719-083-82	DIODE UDZS-TE17-12B	
D8931	8-719-083-82	DIODE UDZS-TE17-12B	
D8932	8-719-083-82	DIODE UDZS-TE17-12B	
D8933	8-719-083-82	DIODE UDZS-TE17-12B	
		<FILTER>	
FL8302	1-236-071-11	ENCAPSULATED COMPONENT	
FL8303	1-236-071-11	ENCAPSULATED COMPONENT	
FL8304	1-236-071-11	ENCAPSULATED COMPONENT	
FL8401	1-236-071-11	ENCAPSULATED COMPONENT	
FL8402	1-236-071-11	ENCAPSULATED COMPONENT	
FL8403	1-236-071-11	ENCAPSULATED COMPONENT	
FL8451	1-236-071-11	ENCAPSULATED COMPONENT	
FL8452	1-236-071-11	ENCAPSULATED COMPONENT	
FL8500	1-236-071-11	ENCAPSULATED COMPONENT	
FL8501	1-236-071-11	ENCAPSULATED COMPONENT	
FL8502	1-233-765-21	FILTER	
FL8503	1-233-768-21	FILTER	
FL8504	1-233-766-21	FILTER	
FL8601	1-236-071-11	ENCAPSULATED COMPONENT	
FL8602	1-233-877-11	FILTER, LOW PASS	
FL8603	1-233-504-21	FILTER, LOW PASS	
FL8604	1-233-504-21	FILTER, LOW PASS	
FL8700	1-236-071-11	ENCAPSULATED COMPONENT	
FL8701	1-236-071-11	ENCAPSULATED COMPONENT	
		<IC>	
IC8301	8-752-096-08	IC CXA2123BQ-T6	
IC8302	8-759-242-76	IC TC7W08F	
IC8303	8-759-242-76	IC TC7W08F	
IC8304	8-759-576-72	IC LF50CDT-TR	
IC8305	8-759-576-72	IC LF50CDT-TR	
IC8401	8-752-096-08	IC CXA2123BQ-T6	
IC8451	8-752-096-83	IC CXA2149AQ-TL	
IC8452	8-759-576-76	IC TDA2822D013TR	
IC8500	8-752-390-37	IC CXD2064Q-T6	
IC8601	8-759-572-04	IC TDA9178T/N1.118	
IC8602	8-759-337-26	IC MM1115XFBE	
IC8700	8-752-390-35	IC CXD2057M-T6	
		<JACK>	
J8901	1-565-838-11	JACK BLOCK, PIN 2P (VARIABLE OUT)	
		<COIL>	
L8101	1-402-711-11	INDUCTOR 0µH	
L8102	1-402-711-11	INDUCTOR 0µH	
L8454	1-410-478-11	INDUCTOR 47µH	
L8455	1-410-478-11	INDUCTOR 47µH	
L8552	1-414-234-22	INDUCTOR CHIP 0µH	
L8601	1-414-234-22	INDUCTOR CHIP 0µH	
L8602	1-414-187-11	INDUCTOR 47µH	
L8606	1-414-234-22	INDUCTOR CHIP 0µH	
L8607	1-414-234-22	INDUCTOR CHIP 0µH	
L8801	1-412-954-11	INDUCTOR 18µH	
L8802	1-412-954-11	INDUCTOR 18µH	
L8804	1-414-234-22	INDUCTOR CHIP 0µH	
L8805	1-414-234-22	INDUCTOR CHIP 0µH	
L8806	1-414-234-22	INDUCTOR CHIP 0µH	
L8919	1-414-234-22	INDUCTOR CHIP 0µH	
		<TRANSISTOR>	
Q8302	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8309	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8311	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8451	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8452	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8501	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8502	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8503	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8504	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8601	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8602	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8603	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8604	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8605	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8606	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8607	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8609	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8610	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8611	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8612	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8614	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8615	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8616	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8620	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8621	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8623	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8624	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q8625	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8626	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8627	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8628	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8629	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8630	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8631	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8632	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8633	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8634	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8635	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8636	1-801-806-11	TRANSISTOR DTC144EKA	
Q8637	1-801-806-11	TRANSISTOR DTC144EKA	
Q8638	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8639	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8640	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8700	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8801	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8804	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8805	8-729-039-67	TRANSISTOR BSS83	
Q8807	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8809	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8810	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8811	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8812	8-729-039-67	TRANSISTOR BSS83	
Q8813	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8814	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8815	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8901	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8902	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8903	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8904	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8905	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8906	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
R8300	1-216-295-91	SHORT	0		
R8301	1-216-025-11	RES-CHIP	100	5%	1/10W
R8302	1-216-017-91	RES-CHIP	47	5%	1/10W
R8303	1-216-295-91	SHORT	0		
R8306	1-216-083-00	RES-CHIP	27K	5%	1/10W
R8307	1-216-295-91	SHORT	0		
R8309	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8315	1-216-295-91	SHORT	0		
R8316	1-216-295-91	SHORT	0		
R8317	1-216-295-91	SHORT	0		
R8318	1-216-295-91	SHORT	0		
R8319	1-216-041-00	RES-CHIP	470	5%	1/10W
R8321	1-216-295-91	SHORT	0		
R8323	1-216-017-91	RES-CHIP	47	5%	1/10W
R8326	1-216-017-91	RES-CHIP	47	5%	1/10W
R8327	1-216-121-11	RES-CHIP	1M	5%	1/10W
R8328	1-216-025-11	RES-CHIP	100	5%	1/10W
R8329	1-216-025-11	RES-CHIP	100	5%	1/10W
R8336	1-216-025-11	RES-CHIP	100	5%	1/10W
R8338	1-216-017-91	RES-CHIP	47	5%	1/10W
R8339	1-216-017-91	RES-CHIP	47	5%	1/10W
R8340	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R8342	1-216-295-91	SHORT	0		
R8401	1-216-295-91	SHORT	0		
R8402	1-216-295-91	SHORT	0		
R8403	1-216-083-00	RES-CHIP	27K	5%	1/10W
R8405	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R8406	1-216-017-91	RES-CHIP	47	5%	1/10W
R8407	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R8409	1-216-017-91	RES-CHIP	47	5%	1/10W
R8410	1-216-025-11	RES-CHIP	100	5%	1/10W
R8411	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R8412	1-216-025-11	RES-CHIP	100	5%	1/10W
R8413	1-216-025-11	RES-CHIP	100	5%	1/10W
R8414	1-216-025-11	RES-CHIP	100	5%	1/10W
R8415	1-216-025-11	RES-CHIP	100	5%	1/10W
R8416	1-216-295-91	SHORT	0		
R8417	1-216-295-91	SHORT	0		
R8418	1-216-295-91	SHORT	0		
R8419	1-216-025-11	RES-CHIP	100	5%	1/10W
R8426	1-216-017-91	RES-CHIP	47	5%	1/10W
R8427	1-216-017-91	RES-CHIP	47	5%	1/10W
R8428	1-216-017-91	RES-CHIP	47	5%	1/10W
R8429	1-216-295-91	SHORT	0		
R8430	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8431	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8432	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8433	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8434	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8435	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8436	1-216-308-00	RES-CHIP	4.7	5%	1/10W
R8437	1-216-308-00	RES-CHIP	4.7	5%	1/10W
R8438	1-216-033-00	RES-CHIP	220	5%	1/10W
R8439	1-216-033-00	RES-CHIP	220	5%	1/10W
R8440	1-216-295-91	SHORT	0		
R8441	1-216-295-91	SHORT	0		
R8451	1-216-093-91	RES-CHIP	68K	5%	1/10W
R8452	1-216-093-91	RES-CHIP	68K	5%	1/10W
R8453	1-208-820-11	METAL CHIP	39K	0.5%	1/10W
R8454	1-208-776-11	METAL CHIP	560	0.5%	1/10W
R8455	1-208-776-11	METAL CHIP	560	0.5%	1/10W
R8458	1-216-033-00	RES-CHIP	220	5%	1/10W
R8459	1-216-033-00	RES-CHIP	220	5%	1/10W
R8466	1-216-025-11	RES-CHIP	100	5%	1/10W
R8467	1-216-025-11	RES-CHIP	100	5%	1/10W
R8468	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8469	1-216-017-91	RES-CHIP	47	5%	1/10W
R8470	1-216-022-00	RES-CHIP	75	5%	1/10W
R8474	1-216-017-91	RES-CHIP	47	5%	1/10W
R8475	1-216-022-00	RES-CHIP	75	5%	1/10W
R8477	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8478	1-216-079-00	RES-CHIP	18K	5%	1/10W
R8479	1-216-295-91	SHORT	0		
R8481	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8482	1-216-029-00	RES-CHIP	150	5%	1/10W

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R8483	1-216-029-00	RES-CHIP	150	5%	1/10W
R8484	1-216-029-00	RES-CHIP	150	5%	1/10W
R8485	1-216-029-00	RES-CHIP	150	5%	1/10W
R8501	1-216-093-91	RES-CHIP	68K	5%	1/10W
R8502	1-216-083-00	RES-CHIP	27K	5%	1/10W
R8503	1-216-295-91	SHORT	0		
R8504	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8505	1-216-295-91	SHORT	0		
R8506	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8507	1-216-295-91	SHORT	0		
R8508	1-216-043-91	RES-CHIP	560	5%	1/10W
R8509	1-216-031-00	RES-CHIP	180	5%	1/10W
R8510	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R8512	1-216-295-91	SHORT	0		
R8514	1-216-017-91	RES-CHIP	47	5%	1/10W
R8517	1-216-295-91	SHORT	0		
R8519	1-216-037-00	RES-CHIP	330	5%	1/10W
R8520	1-216-041-00	RES-CHIP	470	5%	1/10W
R8521	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R8522	1-216-041-00	RES-CHIP	470	5%	1/10W
R8523	1-216-033-00	RES-CHIP	220	5%	1/10W
R8524	1-216-295-91	SHORT	0		
R8526	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R8527	1-216-047-91	RES-CHIP	820	5%	1/10W
R8528	1-216-047-91	RES-CHIP	820	5%	1/10W
R8529	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R8530	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R8531	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R8532	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8533	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8534	1-216-295-91	SHORT	0		
R8535	1-216-295-91	SHORT	0		
R8536	1-216-295-91	SHORT	0		
R8537	1-216-295-91	SHORT	0		
R8600	1-216-295-91	SHORT	0		
R8601	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8602	1-216-295-91	SHORT	0		
R8603	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R8604	1-208-775-11	METAL CHIP	510	0.5%	1/10W
R8605	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8606	1-216-025-11	RES-CHIP	100	5%	1/10W
R8607	1-216-045-00	RES-CHIP	680	5%	1/10W
R8608	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8609	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8610	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8611	1-216-041-00	RES-CHIP	470	5%	1/10W
R8612	1-216-025-11	RES-CHIP	100	5%	1/10W
R8613	1-216-025-11	RES-CHIP	100	5%	1/10W
R8614	1-216-295-91	SHORT	0		
R8616	1-216-295-91	SHORT	0		
R8617	1-208-772-11	METAL CHIP	390	0.5%	1/10W
R8618	1-208-778-11	METAL CHIP	680	0.5%	1/10W
R8619	1-216-295-91	SHORT	0		
R8621	1-216-025-11	RES-CHIP	100	5%	1/10W
R8623	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8624	1-216-041-00	RES-CHIP	470	5%	1/10W
R8625	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8626	1-216-041-00	RES-CHIP	470	5%	1/10W
R8627	1-216-041-00	RES-CHIP	470	5%	1/10W
R8628	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8629	1-216-041-00	RES-CHIP	470	5%	1/10W
R8630	1-216-025-11	RES-CHIP	100	5%	1/10W
R8631	1-216-295-91	SHORT	0		
R8632	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8633	1-216-041-00	RES-CHIP	470	5%	1/10W
R8634	1-208-771-11	METAL CHIP	360	0.5%	1/10W
R8635	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8636	1-216-041-00	RES-CHIP	470	5%	1/10W
R8640	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8642	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R8644	1-216-043-91	RES-CHIP	560	5%	1/10W
R8645	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8646	1-216-295-91	SHORT	0		
R8647	1-216-025-11	RES-CHIP	100	5%	1/10W
R8648	1-216-025-11	RES-CHIP	100	5%	1/10W
R8649	1-216-079-00	RES-CHIP	18K	5%	1/10W
R8650	1-216-295-91	SHORT	0		
R8652	1-216-037-00	RES-CHIP	330	5%	1/10W
R8653	1-216-041-00	RES-CHIP	470	5%	1/10W
R8654	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R8655	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R8659	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8660	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8661	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R8664	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R8665	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R8666	1-216-295-91	SHORT	0		
R8667	1-216-043-91	RES-CHIP	560	5%	1/10W
R8670	1-216-040-00	RES-CHIP	430	5%	1/10W
R8671	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8672	1-216-295-91	SHORT	0		
R8673	1-216-079-00	RES-CHIP	18K	5%	1/10W
R8675	1-216-037-00	RES-CHIP	330	5%	1/10W
R8676	1-216-295-91	SHORT	0		
R8677	1-216-041-00	RES-CHIP	470	5%	1/10W
R8678	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R8679	1-216-041-00	RES-CHIP	470	5%	1/10W
R8680	1-216-295-91	SHORT	0		
R8681	1-216-041-00	RES-CHIP	470	5%	1/10W
R8682	1-216-031-00	RES-CHIP	180	5%	1/10W
R8683	1-216-041-00	RES-CHIP	470	5%	1/10W
R8684	1-216-295-91	SHORT	0		
R8685	1-216-041-00	RES-CHIP	470	5%	1/10W
R8686	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8687	1-216-037-00	RES-CHIP	330	5%	1/10W
R8688	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8689	1-216-041-00	RES-CHIP	470	5%	1/10W
R8690	1-216-041-00	RES-CHIP	470	5%	1/10W
R8692	1-216-041-00	RES-CHIP	470	5%	1/10W
R8693	1-216-041-00	RES-CHIP	470	5%	1/10W
R8694	1-216-041-00	RES-CHIP	470	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R8695	1-216-013-00	RES-CHIP	33	5%	1/10W
R8696	1-216-013-00	RES-CHIP	33	5%	1/10W
R8697	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R8698	1-216-031-00	RES-CHIP	180	5%	1/10W
R8699	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R8700	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8701	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8702	1-216-025-11	RES-CHIP	100	5%	1/10W
R8703	1-216-025-11	RES-CHIP	100	5%	1/10W
R8704	1-216-025-11	RES-CHIP	100	5%	1/10W
R8705	1-216-295-91	SHORT	0		
R8706	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8707	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8708	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8709	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R8710	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8711	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8712	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8713	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8714	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8715	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R8716	1-216-043-91	RES-CHIP	560	5%	1/10W
R8717	1-216-037-00	RES-CHIP	330	5%	1/10W
R8718	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R8719	1-216-043-91	RES-CHIP	560	5%	1/10W
R8720	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R8721	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8722	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8723	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8724	1-216-095-00	RES-CHIP	82K	5%	1/10W
R8725	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8726	1-216-295-91	SHORT	0		
R8727	1-216-045-00	RES-CHIP	680	5%	1/10W
R8728	1-216-045-00	RES-CHIP	680	5%	1/10W
R8729	1-216-033-00	RES-CHIP	220	5%	1/10W
R8730	1-216-295-91	SHORT	0		
R8801	1-216-035-00	RES-CHIP	270	5%	1/10W
R8804	1-216-033-00	RES-CHIP	220	5%	1/10W
R8805	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R8809	1-216-085-91	RES-CHIP	33K	5%	1/10W
R8810	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8812	1-216-037-00	RES-CHIP	330	5%	1/10W
R8813	1-216-037-00	RES-CHIP	330	5%	1/10W
R8815	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8816	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8818	1-216-642-11	METAL CHIP	430	0.5%	1/10W
R8821	1-216-025-11	RES-CHIP	100	5%	1/10W
R8823	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R8826	1-216-295-91	SHORT	0		
R8827	1-216-295-91	SHORT	0		
R8828	1-216-029-00	RES-CHIP	150	5%	1/10W
R8831	1-216-031-00	RES-CHIP	180	5%	1/10W
R8832	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R8833	1-216-295-91	SHORT	0		
R8834	1-216-037-00	RES-CHIP	330	5%	1/10W
R8835	1-216-037-00	RES-CHIP	330	5%	1/10W
R8836	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8837	1-216-079-00	RES-CHIP	18K	5%	1/10W
R8838	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8839	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8840	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8841	1-216-642-11	METAL CHIP	430	0.5%	1/10W
R8842	1-216-025-11	RES-CHIP	100	5%	1/10W
R8843	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R8844	1-216-295-91	SHORT	0		
R8845	1-216-041-00	RES-CHIP	470	5%	1/10W
R8846	1-216-041-00	RES-CHIP	470	5%	1/10W
R8847	1-216-041-00	RES-CHIP	470	5%	1/10W
R8850	1-216-295-91	SHORT	0		
R8851	1-216-295-91	SHORT	0		
R8853	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8854	1-216-085-91	RES-CHIP	33K	5%	1/10W
R8900	1-216-039-00	RES-CHIP	390	5%	1/10W
R8901	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8902	1-216-039-00	RES-CHIP	390	5%	1/10W
R8903	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8904	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8905	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8906	1-216-035-00	RES-CHIP	270	5%	1/10W
R8907	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8908	1-216-035-00	RES-CHIP	270	5%	1/10W
R8909	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8910	1-216-295-91	SHORT	0		
R8911	1-216-025-11	RES-CHIP	100	5%	1/10W
R8912	1-216-295-91	SHORT	0		
R8913	1-216-022-00	RES-CHIP	75	5%	1/10W
R8914	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R8915	1-216-022-00	RES-CHIP	75	5%	1/10W
R8916	1-216-017-91	RES-CHIP	47	5%	1/10W
R8917	1-216-017-91	RES-CHIP	47	5%	1/10W
R8918	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8919	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8920	1-216-295-91	SHORT	0		
R8921	1-216-295-91	SHORT	0		
R8922	1-216-022-00	RES-CHIP	75	5%	1/10W
R8923	1-216-022-00	RES-CHIP	75	5%	1/10W
R8924	1-216-022-00	RES-CHIP	75	5%	1/10W
R8925	1-216-022-00	RES-CHIP	75	5%	1/10W
R8926	1-216-017-91	RES-CHIP	47	5%	1/10W
R8927	1-216-017-91	RES-CHIP	47	5%	1/10W
R8928	1-216-017-91	RES-CHIP	47	5%	1/10W
R8929	1-216-039-00	RES-CHIP	390	5%	1/10W
R8930	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8931	1-216-039-00	RES-CHIP	390	5%	1/10W
R8932	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8933	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8934	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8935	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8936	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8937	1-216-035-00	RES-CHIP	270	5%	1/10W
R8938	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8939	1-216-035-00	RES-CHIP	270	5%	1/10W

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R8940	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8941	1-216-025-11	RES-CHIP	100	5%	1/10W
R8942	1-216-009-91	RES-CHIP	22	5%	1/10W
R8943	1-216-022-00	RES-CHIP	75	5%	1/10W
R8944	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R8945	1-216-022-00	RES-CHIP	75	5%	1/10W
R8946	1-216-017-91	RES-CHIP	47	5%	1/10W
R8947	1-216-039-00	RES-CHIP	390	5%	1/10W
R8948	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8949	1-216-022-00	RES-CHIP	75	5%	1/10W
R8950	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8951	1-216-017-91	RES-CHIP	47	5%	1/10W
R8952	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8953	1-216-035-00	RES-CHIP	270	5%	1/10W
R8954	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8955	1-216-039-00	RES-CHIP	390	5%	1/10W
R8956	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8957	1-216-025-11	RES-CHIP	100	5%	1/10W
R8958	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8959	1-216-022-00	RES-CHIP	75	5%	1/10W
R8960	1-216-017-91	RES-CHIP	47	5%	1/10W
R8961	1-216-022-00	RES-CHIP	75	5%	1/10W
R8962	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R8963	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8964	1-216-035-00	RES-CHIP	270	5%	1/10W
R8965	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8966	1-216-037-00	RES-CHIP	330	5%	1/10W
R8967	1-216-037-00	RES-CHIP	330	5%	1/10W
R8968	1-216-022-00	RES-CHIP	75	5%	1/10W
R8969	1-216-017-91	RES-CHIP	47	5%	1/10W
R8972	1-216-045-00	RES-CHIP	680	5%	1/10W
R8973	1-216-045-00	RES-CHIP	680	5%	1/10W
R8974	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8975	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8976	1-216-113-00	RES-CHIP	470K	5%	1/10W
R8977	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8978	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R8979	1-216-041-00	RES-CHIP	470	5%	1/10W
R8981	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8982	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R8983	1-216-079-00	RES-CHIP	18K	5%	1/10W
R8984	1-216-295-91	SHORT	0		
R8985	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R8986	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R8987	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8988	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8994	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8995	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8996	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8997	1-216-049-11	RES-CHIP	1K	5%	1/10W
		<TERMINAL BOARD>			
TB8101	1-537-712-11	TERMINAL, PUSH (CENTER SP IN)			
		<CRYSTAL>			
X8301	1-781-612-11	VIBRATOR, CRYSTAL (16.2MHz)			
X8401	1-781-612-11	VIBRATOR, CRYSTAL (16.2MHz)			
X8700	1-767-342-21	VIBRATOR, CRYSTAL (14.3MHz)			
	* A-1299-413-A	AP BOARD, COMPLETE			
		<CAPACITOR>			
C2601	1-162-969-11	CERAMIC CHIP	0.0068µF	10%	25V
C2602	1-164-173-11	CERAMIC CHIP	0.0039µF	10%	50V
C2603	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2604	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2605	1-126-933-11	ELECT	100µF	20%	16V
C2606	1-104-660-91	ELECT	47µF	20%	16V
C2607	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2608	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2609	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2610	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2611	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2612	1-162-969-11	CERAMIC CHIP	0.0068µF	10%	25V
C2613	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2614	1-164-173-11	CERAMIC CHIP	0.0039µF	10%	50V
C2615	1-104-660-91	ELECT	47µF	20%	16V
C2616	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2617	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C2618	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2619	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2620	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2621	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2622	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2623	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2624	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2625	1-126-933-11	ELECT	100µF	20%	16V
C2626	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2627	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2628	1-162-920-11	CERAMIC CHIP	27pF	5%	50V
C2629	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C2630	1-162-915-11	CERAMIC CHIP	10pF	0.5pF	50V
C2631	1-162-915-11	CERAMIC CHIP	10pF	0.5pF	50V
C2632	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2633	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2634	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2635	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2636	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2637	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2638	1-126-933-11	ELECT	100µF	20%	16V
C2639	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2642	1-110-563-11	CERAMIC CHIP	0.068µF	10%	16V
C2643	1-126-933-11	ELECT	100µF	20%	16V
C2644	1-126-933-11	ELECT	100µF	20%	16V
C2645	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2647	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C2648	1-164-156-11	CERAMIC CHIP	0.1µF		25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C2649	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C2650	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C2651	1-126-933-11	ELECT	100µF	20%	16V
C2652	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C2653	1-126-933-11	ELECT	100µF	20%	16V
C2654	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2655	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2656	1-126-933-11	ELECT	100µF	20%	16V
C2657	1-126-933-11	ELECT	100µF	20%	16V
C2658	1-126-933-11	ELECT	100µF	20%	16V
C2659	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2660	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2661	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2662	1-126-933-11	ELECT	100µF	20%	16V
C2663	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2664	1-126-933-11	ELECT	100µF	20%	16V
C2665	1-126-933-11	ELECT	100µF	20%	16V
C2666	1-126-933-11	ELECT	100µF	20%	16V
C2667	1-126-933-11	ELECT	100µF	20%	16V
C2668	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2669	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C2670	1-126-933-11	ELECT	100µF	20%	16V
C2671	1-126-916-11	ELECT	1000µF	20%	6.3V
C2672	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2673	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C2674	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2675	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2676	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2677	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C2678	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2679	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C2680	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2682	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2683	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2684	1-126-933-11	ELECT	100µF	20%	16V
C2685	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C2686	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C2687	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C2688	1-126-933-11	ELECT	100µF	20%	16V
C2689	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C2690	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C2691	1-126-933-11	ELECT	100µF	20%	16V
C2692	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2693	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2694	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2695	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2696	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2697	1-126-933-11	ELECT	100µF	20%	16V
C2698	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2699	1-126-933-11	ELECT	100µF	20%	16V
C2700	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2701	1-126-933-11	ELECT	100µF	20%	16V
C2702	1-126-933-11	ELECT	100µF	20%	16V
C2703	1-126-933-11	ELECT	100µF	20%	16V
C2704	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C2705	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C2706	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C2707	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2708	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2709	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2710	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2711	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C2712	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C2713	1-126-933-11	ELECT	100µF	20%	16V
C2714	1-126-933-11	ELECT	100µF	20%	16V
C2715	1-126-933-11	ELECT	100µF	20%	16V
C2716	1-126-933-11	ELECT	100µF	20%	16V
C2717	1-126-933-11	ELECT	100µF	20%	16V
C2718	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C2719	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C2720	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C2721	1-126-933-11	ELECT	100µF	20%	16V
C2722	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C2723	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2724	1-126-933-11	ELECT	100µF	20%	16V
C2725	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2726	1-126-933-11	ELECT	100µF	20%	16V
C2727	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2728	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C2729	1-126-933-11	ELECT	100µF	20%	16V
C2730	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C2731	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C2732	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C2733	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C2734	1-126-933-11	ELECT	100µF	20%	16V

<CONNECTOR>

CN2601 *	1-564-522-11	PLUG, CONNECTOR 7P	
CN2602 *	1-564-511-11	PLUG, CONNECTOR 8P	
CN2603	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	

<DIODE>

D2601	8-719-069-54	DIODE UDZSTE-175.1B	
D2602	8-719-069-54	DIODE UDZSTE-175.1B	
D2603	8-719-069-54	DIODE UDZSTE-175.1B	
D2604	8-719-069-54	DIODE UDZSTE-175.1B	
D2605	8-719-404-50	DIODE MA111-TX	

<FERRITE BEAD>

FB2601	1-414-229-11	FERRITE	0µH
FB2602	1-414-229-11	FERRITE	0µH
FB2603	1-414-229-11	FERRITE	0µH
FB2604	1-414-229-11	FERRITE	0µH
FB2605	1-216-864-91	SHORT	0
FB2607	1-414-229-11	FERRITE	0µH
FB2608	1-414-229-11	FERRITE	0µH
FB2609	1-414-229-11	FERRITE	0µH
FB2612	1-414-229-11	FERRITE	0µH
FB2613	1-414-229-11	FERRITE	0µH
FB2614	1-414-229-11	FERRITE	0µH

AP

REF.NO.	PART NO.	DESCRIPTION			REMARK
FB2615	1-414-229-11	FERRITE	0µH		
FB2616	1-414-229-11	FERRITE	0µH		
FB2617	1-414-229-11	FERRITE	0µH		
FB2618	1-414-229-11	FERRITE	0µH		
		<FILTER>			
FL2601	1-233-736-21	FILTER, EMI			
FL2602	1-233-736-21	FILTER, EMI			
		<IC>			
IC2601	8-759-100-96	IC µPC4558G2			
IC2602	8-759-100-96	IC µPC4558G2			
IC2603	8-752-924-42	IC CXP86448-634Q			
IC2604	8-759-683-55	IC CM0017AF			
IC2605	8-759-352-91	IC PST9143NL			
IC2606	6-700-319-01	IC M24128-BWMN6T			
IC2607	8-759-485-79	IC TC7SET08FU(TE85L)			
IC2608	8-759-830-08	IC NJM2068V-TE2			
IC2609	8-759-830-08	IC NJM2068V-TE2			
IC2610	8-759-559-82	IC µPC29M33T-E1			
IC2611	8-759-829-87	IC CD0031AM			
IC2612	8-759-830-08	IC NJM2068V-TE2			
IC2613	8-759-830-08	IC NJM2068V-TE2			
IC2614	8-759-830-08	IC NJM2068V-TE2			
IC2615	8-759-830-08	IC NJM2068V-TE2			
		<COIL>			
L2601	1-469-555-21	INDUCTOR	10µH		
L2602	1-469-555-21	INDUCTOR	10µH		
		<TRANSISTOR>			
Q2603	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q2607	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q2608	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q2609	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
		<RESISTOR>			
R2601	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2602	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2603	1-216-855-11	RES-CHIP	680K	5%	1/16W
R2604	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2605	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2606	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2607	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2608	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2609	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2610	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2611	1-216-809-11	RES-CHIP	100	5%	1/16W
R2612	1-216-855-11	RES-CHIP	680K	5%	1/16W
R2613	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2614	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2615	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2616	1-216-809-11	RES-CHIP	100	5%	1/16W
R2617	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2618	1-216-809-11	RES-CHIP	100	5%	1/16W
R2619	1-216-809-11	RES-CHIP	100	5%	1/16W
R2620	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2621	1-216-809-11	RES-CHIP	100	5%	1/16W
R2622	1-216-809-11	RES-CHIP	100	5%	1/16W
R2623	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2624	1-216-809-11	RES-CHIP	100	5%	1/16W
R2625	1-216-809-11	RES-CHIP	100	5%	1/16W
R2626	1-216-809-11	RES-CHIP	100	5%	1/16W
R2627	1-216-809-11	RES-CHIP	100	5%	1/16W
R2628	1-216-809-11	RES-CHIP	100	5%	1/16W
R2629	1-216-817-11	RES-CHIP	470	5%	1/16W
R2630	1-216-809-11	RES-CHIP	100	5%	1/16W
R2631	1-216-809-11	RES-CHIP	100	5%	1/16W
R2632	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2633	1-216-813-11	RES-CHIP	220	5%	1/16W
R2634	1-216-809-11	RES-CHIP	100	5%	1/16W
R2635	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2636	1-216-813-11	RES-CHIP	220	5%	1/16W
R2637	1-216-813-11	RES-CHIP	220	5%	1/16W
R2638	1-216-809-11	RES-CHIP	100	5%	1/16W
R2639	1-216-813-11	RES-CHIP	220	5%	1/16W
R2640	1-216-809-11	RES-CHIP	100	5%	1/16W
R2641	1-216-809-11	RES-CHIP	100	5%	1/16W
R2642	1-216-809-11	RES-CHIP	100	5%	1/16W
R2643	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2644	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2645	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2646	1-216-809-11	RES-CHIP	100	5%	1/16W
R2649	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2650	1-216-815-11	RES-CHIP	330	5%	1/16W
R2651	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2652	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2653	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2654	1-216-809-11	RES-CHIP	100	5%	1/16W
R2655	1-216-809-11	RES-CHIP	100	5%	1/16W
R2656	1-216-815-11	RES-CHIP	330	5%	1/16W
R2657	1-216-816-11	RES-CHIP	390	5%	1/16W
R2658	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2659	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2660	1-218-701-11	METAL CHIP	2.4K	0.5%	1/16W
R2661	1-218-689-11	METAL CHIP	750	0.5%	1/16W
R2662	1-216-864-91	SHORT	0		
R2663	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2671	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2673	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2675	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R2676	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R2677	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R2678	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R2679	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2680	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2681	1-218-728-11	METAL CHIP	33K	0.5%	1/16W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R2682	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R2683	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R2684	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R2685	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R2686	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R2688	1-216-809-11	RES-CHIP	100	5%	1/16W
R2689	1-216-809-11	RES-CHIP	100	5%	1/16W
R2690	1-216-809-11	RES-CHIP	100	5%	1/16W
R2691	1-216-809-11	RES-CHIP	100	5%	1/16W
R2692	1-216-809-11	RES-CHIP	100	5%	1/16W
R2694	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R2695	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R2699	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2700	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2702	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R2703	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R2704	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R2705	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R2707	1-216-809-11	RES-CHIP	100	5%	1/16W
R2708	1-216-809-11	RES-CHIP	100	5%	1/16W
R2709	1-216-809-11	RES-CHIP	100	5%	1/16W
R2710	1-216-809-11	RES-CHIP	100	5%	1/16W
R2711	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R2712	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R2713	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R2714	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R2715	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R2717	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R2719	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R2720	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R2723	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R2724	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R2725	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R2726	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R2727	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R2728	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R2729	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R2730	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R2731	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R2733	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R2734	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R2736	1-218-716-11	METAL CHIP	10K	0.5%	1/16W

<CRYSTAL>

X2601 1-767-925-21 VIBRATOR, CRYSTAL (12MHz)

****

* A-1348-062-A D BOARD, COMPLETE
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1-500-048-11 FERRITE 0µH (Q5104)
4-363-414-00 SPACER, MICA (Q5103)
4-382-854-11 SCREW (M3X10), P, SW (+)
(D5107, D5108, IC5103, Q5104, Q5705)
* 4-393-506-01 RETAINER, TR
7-682-952-09 SCREW +PSW 3X16 (IC5501, IC5502)

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<CAPACITOR>			
C5001	1-104-660-91	ELECT	47µF	20%	16V
C5002	1-126-963-11	ELECT	4.7µF	20%	50V
C5011	1-126-934-11	ELECT	220µF	20%	16V
C5020	1-126-961-11	ELECT	2.2µF	20%	50V
C5102	1-102-973-00	CERAMIC	100pF	5%	50V
C5103	1-126-960-11	ELECT	1µF	20%	50V
C5104	1-137-415-11	MYLAR	0.0068µF	10%	100V
C5105	1-102-973-00	CERAMIC	100pF	5%	50V
C5112	1-162-117-00	CERAMIC	100pF	10%	500V
C5113	1-136-207-11	MYLAR	0.047µF	10%	250V
C5115	1-124-347-51	ELECT	100µF	20%	160V
C5117	1-162-116-00	CERAMIC	680pF	10%	2KV
C5118	1-137-391-11	MYLAR	0.0047µF	5%	100V
C5119	1-162-116-00	CERAMIC	680pF	10%	2KV
C5120	1-162-116-00	CERAMIC	680pF	10%	2KV
C5123	1-129-718-00	FILM	0.022µF	5%	630V
C5127	1-117-643-11	FILM	9100pF	3%	1.2KV
C5130	1-115-521-11	FILM	0.82µF	5%	250V
C5133	1-104-665-11	ELECT	100µF	20%	25V
C5135	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C5136	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C5137	1-137-043-11	MYLAR	0.0047µF	10%	400V
C5138	1-126-965-91	ELECT	22µF	20%	50V
C5140	1-107-652-11	ELECT	10µF	20%	250V
C5141	1-136-189-00	MYLAR	0.1µF	10%	250V
C5142	1-162-117-00	CERAMIC	100pF	10%	500V
C5143	1-115-521-11	FILM	0.82µF	5%	250V
C5145	1-104-665-11	ELECT	100µF	20%	25V
C5146	1-107-655-11	ELECT	47µF	20%	250V
C5147	1-102-228-00	CERAMIC	470pF	10%	500V
C5148	1-126-941-11	ELECT	470µF	20%	25V
C5149	1-126-941-11	ELECT	470µF	20%	25V
C5150	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C5151	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C5152	1-126-972-11	ELECT	1000µF	20%	50V
C5153	1-126-972-11	ELECT	1000µF	20%	50V
C5158	1-124-347-51	ELECT	100µF	20%	160V
C5159	1-126-935-11	ELECT	470µF	20%	16V
C5160	1-126-935-11	ELECT	470µF	20%	16V
C5163	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C5164	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C5165	1-126-967-11	ELECT	47µF	20%	50V
C5166	1-126-967-11	ELECT	47µF	20%	50V
C5167	1-126-967-11	ELECT	47µF	20%	50V
C5168	1-126-967-11	ELECT	47µF	20%	50V
C5170	1-136-165-00	MYLAR	0.1µF	5%	50V
C5171	1-106-387-00	MYLAR	0.068µF	10%	200V
C5172	1-136-165-00	MYLAR	0.1µF	5%	50V
C5173	1-136-165-00	MYLAR	0.1µF	5%	50V
C5174	1-136-165-00	MYLAR	0.1µF	5%	50V
C5175	1-126-967-11	ELECT	47µF	20%	50V
C5176	1-126-967-11	ELECT	47µF	20%	50V
C5204	1-126-933-11	ELECT	100µF	20%	16V
C5205	1-130-495-00	MYLAR	0.1µF	5%	50V

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C5206	1-126-960-11	ELECT	1µF	20%	50V
C5207	1-126-965-91	ELECT	22µF	20%	50V
C5208	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C5209	1-163-275-11	CERAMIC CHIP	0.001µF	5%	50V
C5211	1-130-495-00	MYLAR	0.1µF	5%	50V
C5214	1-126-935-11	ELECT	470µF	20%	16V
C5215	1-126-964-11	ELECT	10µF	20%	50V
C5216	1-164-096-11	CERAMIC	0.01µF		50V
C5217	1-164-096-11	CERAMIC	0.01µF		50V
C5219	1-164-096-11	CERAMIC	0.01µF		50V
C5220	1-164-096-11	CERAMIC	0.01µF		50V
C5221	1-164-096-11	CERAMIC	0.01µF		50V
C5222	1-164-096-11	CERAMIC	0.01µF		50V
C5223	1-126-960-11	ELECT	1µF	20%	50V
C5224	1-126-967-11	ELECT	47µF	20%	50V
C5225	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5226	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C5301	1-104-664-11	ELECT	47µF	20%	25V
C5302	1-104-665-11	ELECT	100µF	20%	25V
C5303	1-126-933-11	ELECT	100µF	20%	16V
C5304	1-163-005-91	CERAMIC CHIP	470pF	10%	50V
C5305	1-137-399-11	MYLAR	0.1µF	5%	100V
C5307	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C5308	1-126-960-11	ELECT	1µF	20%	50V
C5310	1-126-964-11	ELECT	10µF	20%	50V
C5311	1-136-177-00	MYLAR	1µF	5%	50V
C5312	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5313	1-126-933-11	ELECT	100µF	20%	16V
C5314	1-126-969-11	ELECT	220µF	20%	50V
C5315	1-126-964-11	ELECT	10µF	20%	50V
C5316	1-137-401-11	MYLAR	0.22µF	10%	100V
C5317	1-104-660-91	ELECT	47µF	20%	16V
C5318	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5319	1-126-941-11	ELECT	470µF	20%	25V
C5320	1-126-972-11	ELECT	1000µF	20%	50V
C5321	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C5323	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5326	1-126-972-11	ELECT	1000µF	20%	50V
C5327	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C5328	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5329	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C5332	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5333	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5334	1-126-960-11	ELECT	1µF	20%	50V
C5401	1-126-967-11	ELECT	47µF	20%	50V
C5402	1-104-664-11	ELECT	47µF	20%	25V
C5507	1-102-973-00	CERAMIC	100pF	5%	50V
C5508	1-102-973-00	CERAMIC	100pF	5%	50V
C5509	1-102-973-00	CERAMIC	100pF	5%	50V
C5510	1-102-973-00	CERAMIC	100pF	5%	50V
C5511	1-102-973-00	CERAMIC	100pF	5%	50V
C5512	1-102-973-00	CERAMIC	100pF	5%	50V
C5517	1-126-965-91	ELECT	22µF	20%	50V
C5518	1-126-965-91	ELECT	22µF	20%	50V
C5519	1-126-969-11	ELECT	220µF	20%	50V
C5520	1-126-969-11	ELECT	220µF	20%	50V
C5521	1-130-495-00	MYLAR	0.1µF	5%	50V
C5522	1-130-495-00	MYLAR	0.1µF	5%	50V
C5523	1-126-971-11	ELECT	470µF	20%	50V
C5524	1-126-971-11	ELECT	470µF	20%	50V
C5527	1-126-969-11	ELECT	220µF	20%	50V
C5528	1-126-969-11	ELECT	220µF	20%	50V
C5529	1-137-150-11	MYLAR	0.01µF	5%	50V
C5530	1-137-150-11	MYLAR	0.01µF	5%	50V
C5711	1-136-165-00	MYLAR	0.1µF	5%	50V
C5712	1-136-177-00	MYLAR	1µF	5%	50V
C5713	1-104-665-11	ELECT	100µF	20%	25V
C5714	1-130-471-00	MYLAR	0.001µF	5%	50V
C5715	1-137-150-11	MYLAR	0.01µF	5%	50V
C5716	1-104-665-11	ELECT	100µF	20%	25V
C5717	1-126-968-11	ELECT	100µF	20%	50V
C5718	1-162-114-00	CERAMIC	0.0047µF		2KV
C5719	1-126-968-11	ELECT	100µF	20%	50V
C5720	1-137-372-11	MYLAR	0.022µF	5%	50V
C5721	1-104-661-91	ELECT	330µF	20%	16V
C5722	1-126-934-11	ELECT	220µF	20%	16V
C5727	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5728	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C5759	1-126-964-11	ELECT	10µF	20%	50V
C5760	1-164-182-11	CERAMIC CHIP	0.0033µF	10%	50V

<CONNECTOR>

CN5001 *	1-564-506-11	PLUG, CONNECTOR 3P
CN5002 *	1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P
CN5003 *	1-506-371-00	PIN, CONNECTOR 2P
CN5004	1-695-915-11	TAB (CONTACT)
CN5006 *	1-564-512-11	PLUG, CONNECTOR 9P
CN5007 *	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN5008 *	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN5009 *	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN5010 *	1-564-507-11	PLUG, CONNECTOR 4P
CN5011 *	1-564-507-11	PLUG, CONNECTOR 4P
CN5012 *	1-564-507-11	PLUG, CONNECTOR 4P
CN5013 *	1-764-333-11	PLUG, CONNECTOR 10P
CN5014 *	1-691-135-11	PIN, CONNECTOR (PC BOARD) 4P
CN5015	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P
CN5016	1-900-903-64	CONNECTOR ASSY 20P
CN5017	1-900-903-64	CONNECTOR ASSY 20P
CN5018 *	1-564-511-11	PLUG, CONNECTOR 8P
CN5019 *	1-564-507-11	PLUG, CONNECTOR 4P
CN5020 *	1-564-506-11	PLUG, CONNECTOR 3P
CN5401 *	1-564-506-11	PLUG, CONNECTOR 3P

<DIODE>

D5001	8-719-991-33	DIODE 1SS133T-77
D5002	8-719-991-33	DIODE 1SS133T-77
D5006	8-719-991-33	DIODE 1SS133T-77
D5008	8-719-991-33	DIODE 1SS133T-77
D5101	8-719-983-38	DIODE MTZJ-T-77-36B
D5107	8-719-979-99	DIODE ERD08M-15

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D5108	8-719-052-09	DIODE FMG-36S-LF024-104	
D5114	8-719-971-20	DIODE ERC38-06	
D5115	8-719-302-43	DIODE EL1Z	
D5116	8-719-979-85	DIODE EGP20G	
D5117	8-719-302-43	DIODE EL1Z	
D5118	8-719-979-85	DIODE EGP20G	
D5121	8-719-908-03	DIODE GP08D	
D5122	8-719-908-03	DIODE GP08D	
D5201	8-719-991-33	DIODE 1SS133T-77	
D5202	8-719-109-85	DIODE RD5.1ESB2	
D5203	8-719-923-86	DIODE MTZJ-T-77-15	
D5204	8-719-921-63	DIODE MTZJ-7.5B	
D5205	8-719-991-33	DIODE 1SS133T-77	
D5207	8-719-991-33	DIODE 1SS133T-77	
D5208	8-719-991-33	DIODE 1SS133T-77	
D5301	8-719-923-86	DIODE MTZJ-T-77-15	
D5302	8-719-991-33	DIODE 1SS133T-77	
D5303	8-719-908-03	DIODE GP08D	
D5304	8-719-908-03	DIODE GP08D	
D5305	8-719-991-33	DIODE 1SS133T-77	
D5306	8-719-923-86	DIODE MTZJ-T-77-15	
D5307	8-719-923-86	DIODE MTZJ-T-77-15	
D5308	8-719-924-16	DIODE MTZJ-T-77-24	
D5309	8-719-924-16	DIODE MTZJ-T-77-24	
D5701	8-719-991-33	DIODE 1SS133T-77	
D5704	8-719-991-33	DIODE 1SS133T-77	
D5719	8-719-923-86	DIODE MTZJ-T-77-15	
D5721	8-719-923-86	DIODE MTZJ-T-77-15	
D5724	8-719-018-82	DIODE RGP02-20EL-6394	
D5726	8-719-991-33	DIODE 1SS133T-77	
D5727	8-719-991-33	DIODE 1SS133T-77	
D5731	8-719-991-33	DIODE 1SS133T-77	
D5732	8-719-991-33	DIODE 1SS133T-77	
		<FERRITE BEAD>	
FB5102	1-412-911-11	FERRITE 0µH	
FB5103	1-412-911-11	FERRITE 0µH	
		<IC>	
IC5103	8-759-701-79	IC NJM7812FA	
IC5104	8-759-929-65	IC LM7912CT	
IC5105	8-759-701-56	IC NJM78M05FA	
IC5106	8-759-701-65	IC NJM79M05FA	
IC5107	8-759-701-59	IC NJM78M09FA	
IC5201	8-759-085-67	IC LM339NS	
IC5301	8-759-251-31	IC CA0007AM	
IC5302	8-759-192-71	IC STV9379	
IC5303	8-759-998-98	IC LM358D	
IC5501	8-749-014-67	IC STK392-020	
IC5502	8-749-014-67	IC STK392-020	
IC5703	8-759-711-28	IC NJM2058D	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<CHIP CONDUCTOR>	
JR5301	1-216-295-91	SHORT 0	
JR5302	1-216-295-91	SHORT 0	
		<COIL>	
L5101	1-406-665-11	INDUCTOR 100µH	
L5104	1-412-551-21	INDUCTOR 1.5mH	
L5105	1-459-111-00	INDUCTOR 10mH	
L5107	1-412-533-21	INDUCTOR 47µH	
L5108	1-412-533-21	INDUCTOR 47µH	
L5109	1-412-519-11	INDUCTOR 3.3µH	
L5201	1-414-187-11	INDUCTOR 47µH	
L5301	1-412-524-11	INDUCTOR 8.2µH	
L5501	1-412-533-21	INDUCTOR 47µH	
L5502	1-412-533-21	INDUCTOR 47µH	
L5503	1-412-533-21	INDUCTOR 47µH	
L5504	1-412-533-21	INDUCTOR 47µH	
		<NEON LAMP>	
NL5101	1-517-778-21	LAMP, NEON	
NL5102	1-517-778-21	LAMP, NEON	
NL5103	1-517-778-21	LAMP, NEON	
		<IC LINK>	
PS5101⚠	1-533-590-31	LINK, IC (1A/90V AC, 60V DC)	
PS5501⚠	1-533-597-31	LINK, IC (5A/90V AC, 60V DC)	
PS5502⚠	1-533-597-31	LINK, IC (5A/90V AC, 60V DC)	
PS5503⚠	1-533-597-31	LINK, IC (5A/90V AC, 60V DC)	
PS5504⚠	1-533-597-31	LINK, IC (5A/90V AC, 60V DC)	
PS5539⚠	1-533-595-21	LINK, IC (3.15A/90V AC, 60V DC)	
PS5540⚠	1-533-595-21	LINK, IC (3.15A/90V AC, 60V DC)	
PS5543⚠	1-533-595-21	LINK, IC (3.15A/90V AC, 60V DC)	
PS5544⚠	1-533-595-21	LINK, IC (3.15A/90V AC, 60V DC)	
PS5549⚠	1-533-595-21	LINK, IC (3.15A/90V AC, 60V DC)	
PS5550⚠	1-533-595-21	LINK, IC (3.15A/90V AC, 60V DC)	
		<TRANSISTOR>	
Q5006	1-801-806-11	TRANSISTOR DTC144EKA	
Q5009	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q5102	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q5104	8-729-051-81	TRANSISTOR 2SC5047-YB	
Q5105	8-729-038-83	TRANSISTOR 2SK2251-01-F19	
Q5106	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q5201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q5302	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q5303	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q5501	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
Q5502	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
Q5503	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q5504	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
Q5505	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q5506	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
Q5704	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
Q5705	8-729-032-61	TRANSISTOR 2SC5022-02			
Q5706	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q5707	8-729-046-80	TRANSISTOR 2SC4634LS-CB11			
Q5709	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q5710	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R			
Q5711	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
	<RESISTOR>				
R5004	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5013	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5023	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5048	1-216-041-00	RES-CHIP	470	5%	1/10W
R5101	1-215-926-00	METAL OXIDE	33K	5%	3W
R5112	1-247-843-11	CARBON	3.3K	5%	1/4W
R5115	1-216-435-11	METAL OXIDE	2.7K	5%	1W
R5119	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R5120	1-216-486-00	METAL OXIDE	8.2K	5%	3W
R5122	1-215-905-11	METAL OXIDE	10	5%	3W
R5136	1-215-443-00	METAL	8.2K	1%	1/4W
R5138	1-215-457-00	METAL	33K	1%	1/4W
R5139	1-216-391-11	METAL OXIDE	1.5	5%	3W
R5140	1-215-449-00	METAL	15K	1%	1/4W
R5141	1-215-911-11	METAL OXIDE	100	5%	3W
R5143	1-247-735-11	CARBON	47	5%	1/2W
R5146	1-215-910-00	METAL OXIDE	68	5%	3W
R5147	1-215-910-00	METAL OXIDE	68	5%	3W
R5148	1-249-377-11	CARBON	0.47	5%	1/4W
R5149	1-247-807-31	CARBON	100	5%	1/4W
R5152	1-216-377-11	METAL OXIDE	4.7	5%	2W
R5153	1-249-379-11	CARBON	0.68	5%	1/4W
R5154	1-260-127-11	CARBON	220K	5%	1/2W
R5155	1-214-909-00	METAL	68K	1%	1/2W
R5157	1-216-474-11	METAL OXIDE	82	5%	3W
R5158	1-216-349-00	METAL OXIDE	1	5%	1W
R5159	1-216-474-11	METAL OXIDE	82	5%	3W
R5160	1-249-377-11	CARBON	0.47	5%	1/4W
R5161	1-249-377-11	CARBON	0.47	5%	1/4W
R5162	1-216-393-00	METAL OXIDE	2.2	5%	3W
R5163	1-216-392-11	METAL OXIDE	1.8	5%	3W
R5164	1-249-393-11	CARBON	10	5%	1/4W
R5166	1-215-905-11	METAL OXIDE	10	5%	3W
R5169	1-249-424-11	CARBON	3.9K	5%	1/4W
R5171	1-249-429-11	CARBON	10K	5%	1/4W
R5172	1-249-417-11	CARBON	1K	5%	1/4W
R5173	1-215-905-11	METAL OXIDE	10	5%	3W
R5174	1-215-905-11	METAL OXIDE	10	5%	3W
R5175	1-215-905-11	METAL OXIDE	10	5%	3W
R5201	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R5202	1-216-049-91	RES-CHIP	1K	5%	1/10W
R5203	1-215-879-11	METAL OXIDE	47K	5%	1W
R5204	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R5205	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R5206	1-216-099-00	RES-CHIP	120K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R5209	1-208-760-11	METAL CHIP	120	0.5%	1/10W
R5210	1-216-113-00	RES-CHIP	470K	5%	1/10W
R5211	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5212	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R5213	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5214	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R5215	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5216	1-247-895-91	CARBON	470K	5%	1/4W
R5217	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R5218	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5219	1-216-075-00	RES-CHIP	12K	5%	1/10W
R5220	1-216-105-91	RES-CHIP	220K	5%	1/10W
R5221	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R5222	1-216-105-91	RES-CHIP	220K	5%	1/10W
R5223	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5224	1-249-405-11	CARBON	100	5%	1/4W
R5225	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R5226	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5227	1-260-135-11	CARBON	1M	5%	1/2W
R5229	1-216-045-00	RES-CHIP	680	5%	1/10W
R5230	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5231	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5232	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5233	1-247-807-31	CARBON	100	5%	1/4W
R5234	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5235	1-208-810-11	METAL CHIP	15K	0.5%	1/10W
R5236	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5302	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5303	1-216-083-00	RES-CHIP	27K	5%	1/10W
R5304	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5305	1-208-801-11	METAL CHIP	6.2K	0.5%	1/10W
R5306	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R5307	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5308	1-216-353-00	METAL OXIDE	2.2	5%	1W
R5309	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5310	1-216-353-00	METAL OXIDE	2.2	5%	1W
R5311	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5312	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5313	1-216-083-00	RES-CHIP	27K	5%	1/10W
R5314	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5315	1-215-913-11	METAL OXIDE	220	5%	3W
R5316	1-216-089-11	RES-CHIP	47K	5%	1/10W
R5317	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5318	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5319	1-216-085-91	RES-CHIP	33K	5%	1/10W
R5320	1-249-383-11	CARBON	1.5	5%	1/4W
R5321	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5323	1-216-083-00	RES-CHIP	27K	5%	1/10W
R5325	1-208-801-11	METAL CHIP	6.2K	0.5%	1/10W
R5326	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R5328	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5329	1-216-025-11	RES-CHIP	100	5%	1/10W
R5330	1-216-295-91	SHORT	0		
R5331	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5338	1-216-295-91	SHORT	0		
R5339	1-247-807-31	CARBON	100	5%	1/4W

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

• The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R5340	1-249-377-11	CARBON	0.47	5%	1/4W
R5341	1-249-377-11	CARBON	0.47	5%	1/4W
R5344	1-216-295-91	SHORT	0		
R5345	1-216-250-00	RES-CHIP	150K	5%	1/8W
R5501	1-247-807-31	CARBON	100	5%	1/4W
R5502	1-247-807-31	CARBON	100	5%	1/4W
R5503	1-247-807-31	CARBON	100	5%	1/4W
R5504	1-247-807-31	CARBON	100	5%	1/4W
R5505	1-247-807-31	CARBON	100	5%	1/4W
R5506	1-247-807-31	CARBON	100	5%	1/4W
R5507	1-247-843-11	CARBON	3.3K	5%	1/4W
R5508	1-247-843-11	CARBON	3.3K	5%	1/4W
R5509	1-247-843-11	CARBON	3.3K	5%	1/4W
R5510	1-247-843-11	CARBON	3.3K	5%	1/4W
R5511	1-249-417-11	CARBON	1K	5%	1/4W
R5512	1-249-417-11	CARBON	1K	5%	1/4W
R5513	1-247-843-11	CARBON	3.3K	5%	1/4W
R5515	1-247-843-11	CARBON	3.3K	5%	1/4W
R5517	1-249-417-11	CARBON	1K	5%	1/4W
R5518	1-249-417-11	CARBON	1K	5%	1/4W
R5519	1-249-429-11	CARBON	10K	5%	1/4W
R5520	1-249-429-11	CARBON	10K	5%	1/4W
R5521	1-214-808-11	METAL	4.7	1%	1/2W
R5522	1-214-808-11	METAL	4.7	1%	1/2W
R5523	1-247-807-31	CARBON	100	5%	1/4W
R5524	1-249-429-11	CARBON	10K	5%	1/4W
R5525	1-214-808-11	METAL	4.7	1%	1/2W
R5526	1-247-807-31	CARBON	100	5%	1/4W
R5527	1-214-808-11	METAL	4.7	1%	1/2W
R5528	1-249-429-11	CARBON	10K	5%	1/4W
R5529	1-214-808-11	METAL	4.7	1%	1/2W
R5530	1-214-808-11	METAL	4.7	1%	1/2W
R5531	1-249-417-11	CARBON	1K	5%	1/4W
R5532	1-249-417-11	CARBON	1K	5%	1/4W
R5533	1-214-808-11	METAL	4.7	1%	1/2W
R5534	1-214-808-11	METAL	4.7	1%	1/2W
R5535	1-214-808-11	METAL	4.7	1%	1/2W
R5536	1-214-808-11	METAL	4.7	1%	1/2W
R5537	1-214-808-11	METAL	4.7	1%	1/2W
R5538	1-214-808-11	METAL	4.7	1%	1/2W
R5541	1-214-808-11	METAL	4.7	1%	1/2W
R5542	1-214-808-11	METAL	4.7	1%	1/2W
R5545	1-214-808-11	METAL	4.7	1%	1/2W
R5546	1-214-808-11	METAL	4.7	1%	1/2W
R5547	1-214-808-11	METAL	4.7	1%	1/2W
R5548	1-214-808-11	METAL	4.7	1%	1/2W
R5551	1-214-808-11	METAL	4.7	1%	1/2W
R5552	1-214-808-11	METAL	4.7	1%	1/2W
R5553	1-214-808-11	METAL	4.7	1%	1/2W
R5554	1-214-808-11	METAL	4.7	1%	1/2W
R5555	1-214-808-11	METAL	4.7	1%	1/2W
R5556	1-214-808-11	METAL	4.7	1%	1/2W
R5557	1-214-808-11	METAL	4.7	1%	1/2W
R5558	1-214-808-11	METAL	4.7	1%	1/2W
R5559	1-214-808-11	METAL	4.7	1%	1/2W
R5560	1-214-808-11	METAL	4.7	1%	1/2W
R5561	1-214-808-11	METAL	4.7	1%	1/2W
R5562	1-214-808-11	METAL	4.7	1%	1/2W
R5563	1-249-429-11	CARBON	10K	5%	1/4W
R5564	1-249-429-11	CARBON	10K	5%	1/4W
R5565	1-249-429-11	CARBON	10K	5%	1/4W
R5566	1-249-429-11	CARBON	10K	5%	1/4W
R5567	1-249-429-11	CARBON	10K	5%	1/4W
R5568	1-249-429-11	CARBON	10K	5%	1/4W
R5569	1-249-429-11	CARBON	10K	5%	1/4W
R5570	1-249-429-11	CARBON	10K	5%	1/4W
R5718	1-249-425-11	CARBON	4.7K	5%	1/4W
R5723	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5724	1-247-807-31	CARBON	100	5%	1/4W
R5725	1-216-093-91	RES-CHIP	68K	5%	1/10W
R5726	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R5727	1-216-085-91	RES-CHIP	33K	5%	1/10W
R5728	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R5729	1-216-025-11	RES-CHIP	100	5%	1/10W
R5730	1-249-431-11	CARBON	15K	5%	1/4W
R5731	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5732	1-249-441-11	CARBON	100K	5%	1/4W
R5734	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R5735	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5737	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5738	1-249-405-11	CARBON	100	5%	1/4W
R5739	1-216-025-11	RES-CHIP	100	5%	1/10W
R5740	1-215-892-11	METAL OXIDE	1K	5%	2W
R5744	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5745	1-216-099-00	RES-CHIP	120K	5%	1/10W
R5746	1-215-925-11	METAL OXIDE	22K	5%	3W
R5747	1-215-925-11	METAL OXIDE	22K	5%	3W
R5748	1-216-041-00	RES-CHIP	470	5%	1/10W
R5749	1-216-025-11	RES-CHIP	100	5%	1/10W
R5750	1-216-025-11	RES-CHIP	100	5%	1/10W
R5751	1-260-328-11	CARBON	1K	5%	1/2W
R5753	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5754	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5755	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5756	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5757	1-219-752-11	CARBON	100K	5%	1/2W
R5758	1-215-925-11	METAL OXIDE	22K	5%	3W
R5759	1-215-925-11	METAL OXIDE	22K	5%	3W
R5762	1-219-743-11	CARBON	100	5%	1/2W
R5763	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5764	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5765	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5768	1-249-429-11	CARBON	10K	5%	1/4W
R5769	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5770	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5771	1-216-097-11	RES-CHIP	100K	5%	1/10W
R5772	1-249-429-11	CARBON	10K	5%	1/4W
⧓ R9901 ⚠		METAL			1/4W
		<SPARK GAP>			
SG5702	1-519-466-11	GAP, SPARK			

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION			REMARK
		<TRANSFORMER>			
T5101	1-437-209-11	TRANSFORMER, HORIZONTAL DRIVE			
T5102	1-419-553-11	COIL,HORIZONTAL LINEARITY(HLC)			
T5103	⚠1-453-335-11	TRANSFORMER ASSY, FLY BACK			(NX-4010//M3P4)
T5104	1-435-439-11	TRANSFORMER, FERRITE (PMT)			
**********					
	* A-1316-512-A	G BOARD, COMPLETE			
		**********			
	* 1-533-725-11	HOLDER, FUSE (F6001)			
	* 4-374-846-01	COVER, CAPACITOR, CAP TYPE			
	4-382-854-11	SCREW (M3X10), P, SW (+) (D6015, D6301, D6302, D6304, D6308, D6309, IC6004)			
		<CAPACITOR>			
C6000	⚠1-104-708-51	MYLAR	0.47µF	20%	250V
C6003	⚠1-104-706-51	MYLAR	0.22µF	20%	250V
C6009	⚠1-104-706-51	MYLAR	0.22µF	20%	250V
C6010	⚠1-119-894-51	CERAMIC	2200pF	20%	250V
C6011	⚠1-119-894-51	CERAMIC	2200pF	20%	250V
C6013	⚠1-161-964-91	CERAMIC	0.0047µF		250V
C6015	⚠1-161-964-91	CERAMIC	0.0047µF		250V
C6017	⚠1-161-964-51	CERAMIC	0.0047µF		250V
C6018	⚠1-161-964-51	CERAMIC	0.0047µF		250V
C6020	1-126-968-11	ELECT	100µF	20%	50V
C6022	1-131-940-11	ELECT	1200µF	20%	250V
C6023	1-131-940-11	ELECT	1200µF	20%	250V
C6024	1-117-227-11	MYLAR	1µF	10%	450V
C6025	1-115-389-11	FILM	0.018µF	3%	800V
C6026	1-125-969-91	CERAMIC	680pF	10%	1KV
C6027	1-115-824-11	ELECT	18µF	20%	50V
C6028	1-104-588-11	FILM	0.0082µF	2.50%	1.25KV
C6029	1-102-106-00	CERAMIC	100pF	10%	50V
C6030	1-136-189-00	MYLAR	0.1µF	10%	250V
C6031	1-125-969-91	CERAMIC	680pF	10%	1KV
C6032	1-115-405-11	FILM	0.039µF	3%	1KV
C6033	1-126-963-11	ELECT	4.7µF	20%	50V
C6034	1-130-029-00	FILM	8200pF	2%	50V
C6035	1-104-665-11	ELECT	100µF	20%	25V
C6036	1-107-906-11	ELECT	10µF	20%	50V
C6037	1-137-150-11	MYLAR	0.01µF	5%	50V
C6038	1-104-588-11	FILM	0.0082µF	2.50%	1.25KV
C6039	1-115-389-11	FILM	0.018µF	3%	800V
C6040	1-117-227-11	MYLAR	1µF	10%	450V
C6041	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C6042	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C6044	1-117-703-11	CERAMIC	0.0047µF	99%	250V
C6100	⚠1-161-964-51	CERAMIC	0.0047µF		250V
C6101	1-107-679-91	ELECT	10µF	20%	450V
C6102	⚠1-161-964-51	CERAMIC	0.0047µF		250V
C6103	1-163-005-91	CERAMIC CHIP	470pF	10%	50V
C6104	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C6105	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C6106	1-163-005-91	CERAMIC CHIP	470pF	10%	50V
C6107	1-137-605-11	MYLAR	0.01µF	10%	250V
C6109	1-126-965-91	ELECT	22µF	20%	50V
C6110	1-163-009-91	CERAMIC CHIP	0.001µF	10%	50V
C6300	1-101-810-00	CERAMIC	100pF	5%	500V
C6301	1-101-810-00	CERAMIC	100pF	5%	500V
C6302	1-102-114-00	CERAMIC	470pF	10%	50V
C6303	1-102-114-00	CERAMIC	470pF	10%	50V
C6306	1-101-810-00	CERAMIC	100pF	5%	500V
C6307	1-126-941-11	ELECT	470µF	20%	25V
C6308	1-126-937-11	ELECT	4700µF	20%	16V
C6309	1-101-810-00	CERAMIC	100pF	5%	500V
C6310	1-101-810-00	CERAMIC	100pF	5%	500V
C6311	1-104-665-11	ELECT	100µF	20%	25V
C6312	1-104-665-11	ELECT	100µF	20%	25V
C6313	1-126-960-11	ELECT	1µF	20%	50V
C6314	1-128-567-51	ELECT	1000µF	20%	100V
C6315	1-128-567-51	ELECT	1000µF	20%	100V
C6316	1-101-810-00	CERAMIC	100pF	5%	500V
C6317	1-109-954-11	ELECT	0.47µF	20%	160V
C6319	1-101-810-00	CERAMIC	100pF	5%	500V
C6320	1-101-810-00	CERAMIC	100pF	5%	500V
C6321	1-128-549-11	ELECT	3300µF	20%	35V
C6322	1-128-549-11	ELECT	3300µF	20%	35V
C6323	1-128-549-11	ELECT	3300µF	20%	35V
C6324	1-128-549-11	ELECT	3300µF	20%	35V
C6325	1-126-935-11	ELECT	470µF	20%	6.3V
C6327	1-126-968-11	ELECT	100µF	20%	50V
C6328	1-126-968-11	ELECT	100µF	20%	50V
C6329	1-126-943-11	ELECT	2200µF	20%	25V
C6330	1-126-943-11	ELECT	2200µF	20%	25V
C6331	1-107-641-11	ELECT	220µF	20%	160V
C6332	1-104-665-11	ELECT	100µF	20%	25V
C6333	1-104-665-11	ELECT	100µF	20%	25V
C6334	1-126-940-11	ELECT	330µF	20%	25V
C6335	1-126-967-11	ELECT	47µF	20%	50V
C6336	1-101-810-00	CERAMIC	100pF	5%	500V
C6337	1-101-810-00	CERAMIC	100pF	5%	500V
C6338	1-162-117-00	CERAMIC	100pF	10%	500V
C6339	1-104-987-11	MYLAR	0.001µF	10%	200V
C6341	1-137-150-11	MYLAR	0.01µF	5%	50V
C6342	1-136-165-00	MYLAR	0.1µF	5%	50V
		<CONNECTOR>			
CN6002	1-695-915-11	TAB (CONTACT)			
CN6004	1-580-843-11	PIN, CONNECTOR (POWER)			
CN6006	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
CN6007	* 1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			
CN6300	* 1-564-508-11	PLUG, CONNECTOR 5P			
CN6301	* 1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
CN6302	* 1-764-333-11	PLUG, CONNECTOR 10P			
CN6303	* 1-764-333-11	PLUG, CONNECTOR 10P			
CN6304	* 1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P			
CN6306	1-695-915-11	TAB (CONTACT)			

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN6307	1-695-915-11	TAB (CONTACT)	
CN6308	1-695-915-11	TAB (CONTACT)	
		<DIODE>	
D6010	8-719-988-61	DIODE 1SS355TE-17	
D6015	⚠8-719-510-53	DIODE D4SB60L	
D6017	8-719-063-73	DIODE D1NL20U-TR	
D6019	8-719-510-02	DIODE D1NS4	
D6020	8-719-029-04	DIODE D5L60	
D6021	8-719-110-36	DIODE RD13ES-B2	
D6022	8-719-979-64	DIODE UF4005PKG23	
D6023	8-719-979-64	DIODE UF4005PKG23	
D6100	⚠8-719-068-00	DIODE ERC04-06SE	
D6101	8-719-947-69	DIODE MTZJ-T-72-18B	
D6102	8-719-083-83	DIODE UDZS-TE17-15B	
D6103	8-719-988-61	DIODE 1SS355TE-17	
D6104	⚠8-719-068-00	DIODE ERC04-06SE	
D6105	8-719-948-45	DIODE ERA22-08	
D6106	⚠8-719-068-00	DIODE ERC04-06SE	
D6108	8-719-510-48	DIODE D1N20R	
D6300	8-719-057-96	DIODE D10SC6M-4012	
D6301	8-719-510-12	DIODE D10SC4M	
D6302	8-719-312-47	DIODE RBA-406B	
D6303	8-719-063-73	DIODE D1NL20U-TR	
D6304	8-719-050-18	DIODE D4SBL20U	
D6305	8-719-988-61	DIODE 1SS355TE-17	
D6306	8-719-988-61	DIODE 1SS355TE-17	
D6307	8-719-988-61	DIODE 1SS355TE-17	
D6308	8-719-988-31	DIODE D10SC6MR	
D6309	8-719-057-96	DIODE D10SC6M-4012	
D6310	8-719-052-91	DIODE D4SBS4-F	
D6311	8-719-988-61	DIODE 1SS355TE-17	
D6312	8-719-988-61	DIODE 1SS355TE-17	
D6315	8-719-988-61	DIODE 1SS355TE-17	
D6316	8-719-988-61	DIODE 1SS355TE-17	
D6317	8-719-988-61	DIODE 1SS355TE-17	
D6318	8-719-921-88	DIODE MTZJ-13B	
D6319	8-719-083-60	DIODE UDZSTE-174.7B	
D6320	8-719-083-60	DIODE UDZSTE-174.7B	
D6323	8-719-032-12	DIODE D1NS6	
		<FUSE>	
F6001	⚠1-576-232-11	FUSE (H.B.C.) (5A/250V)	
		<FERRITE BEAD>	
FB6002	1-412-911-11	FERRITE 0µH	
FB6103	1-412-911-11	FERRITE 0µH	
FB6301	1-412-911-11	FERRITE 0µH	
FB6302	1-412-911-11	FERRITE 0µH	
FB6303	1-412-911-11	FERRITE 0µH	
FB6304	1-412-911-11	FERRITE 0µH	
FB6305	1-412-911-11	FERRITE 0µH	
FB6306	1-412-911-11	FERRITE 0µH	
FB6309	1-412-911-11	FERRITE 0µH	
FB6310	1-412-911-11	FERRITE 0µH	
		<IC>	
IC6002	8-749-924-35	PHOTO COUPLER ON3171-R	
IC6004	8-749-016-66	IC MCR5152	
IC6007	8-749-924-35	PHOTO COUPLER ON3171-R	
IC6301	8-749-012-13	IC DM-58	
IC6302	8-759-663-29	IC MM1476AF(TP)	
IC6303	8-759-198-31	IC µPC1093J-1-T	
IC6304	8-759-908-15	IC TL431CLP	
		<COIL>	
L6303	1-412-525-31	INDUCTOR 10µH	
L6304	1-406-659-11	INDUCTOR 10µH	
L6307	1-412-525-31	INDUCTOR 10µH	
L6308	1-412-525-31	INDUCTOR 10µH	
L6309	1-412-525-31	INDUCTOR 10µH	
L6310	1-412-525-31	INDUCTOR 10µH	
L6311	1-412-525-31	INDUCTOR 10µH	
L6314	1-412-525-31	INDUCTOR 10µH	
L6315	1-412-525-31	INDUCTOR 10µH	
		<IC LINK>	
PS6300	⚠1-801-549-21	PROTECTOR, MODULE (4.0A)	
PS6301	⚠1-801-549-21	PROTECTOR, MODULE (4.0A)	
PS6302	⚠1-801-549-21	PROTECTOR, MODULE (4.0A)	
PS6303	⚠1-801-549-21	PROTECTOR, MODULE (4.0A)	
PS6306	⚠1-801-550-21	PROTECTOR, MODULE (2.5A)	
PS6307	⚠1-801-550-21	PROTECTOR, MODULE (2.5A)	
PS6310	⚠1-801-550-21	PROTECTOR, MODULE (2.5A)	
PS6311	⚠1-801-550-21	PROTECTOR, MODULE (2.5A)	
		<TRANSISTOR>	
Q6004	8-729-140-93	TRANSISTOR 2SB733-34	
Q6100	8-729-046-40	TRANSISTOR 2SK2663	
Q6102	8-729-023-22	TRANSISTOR 2SD2114K	
Q6300	8-729-023-22	TRANSISTOR 2SD2114K	
Q6301	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6302	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q6303	8-729-820-82	TRANSISTOR 2SA1208	
Q6304	8-729-026-39	TRANSISTOR 2SA933AS-QT	
		<RESISTOR>	
R6000	1-260-131-11	CARBON 470K 5% 1/2W	
R6001	1-260-131-11	CARBON 470K 5% 1/2W	
R6002	1-216-057-00	RES-CHIP 2.2K 5% 1/10W	
R6003	⚠1-219-759-91	CARBON 1M 5% 1/2W	
R6026	⚠1-218-265-21	METAL 8.2M 5% 1W	
R6035	⚠1-205-998-11	CEMENTED 1 5% 10W	
R6043	1-216-073-91	RES-CHIP 10K 5% 1/10W	
R6049	⚠1-205-998-11	CEMENTED 1 5% 10W	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R6052	1-249-417-11	CARBON	1K	5%	1/4W
R6053	1-216-660-11	METAL CHIP	2.4K	0.5%	1/10W
R6054	1-208-774-11	METAL CHIP	470	0.5%	1/10W
R6055	1-208-803-11	METAL CHIP	7.5K	0.5%	1/10W
R6056	1-217-625-00	METAL	0.05	10%	2W
R6057	1-215-477-00	METAL	220K	1%	1/4W
R6058	1-215-477-00	METAL	220K	1%	1/4W
R6059	1-215-477-00	METAL	220K	1%	1/4W
R6060	1-219-512-11	CARBON	2.2M	5%	1/2W
R6061	⚠1-220-886-61	FUSIBLE	0.1	10%	1W
R6062	1-208-796-11	METAL CHIP	3.9K	0.5%	1/10W
R6065	1-219-512-11	CARBON	2.2M	5%	1/2W
R6067	1-249-397-11	CARBON	22	5%	1/4W
R6068	⚠1-205-998-11	CEMENTED	1	5%	10W
R6069	⚠1-205-998-11	CEMENTED	1	5%	10W
R6072	1-249-417-11	CARBON	1K	5%	1/4W
R6076	1-249-389-11	CARBON	4.7	5%	1/4W
R6079	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6100	1-260-298-51	CARBON	3.3	5%	1/2W
R6101	1-216-045-00	RES-CHIP	680	5%	1/10W
R6102	1-249-389-11	CARBON	4.7	5%	1/4W
R6103	1-216-009-91	RES-CHIP	22	5%	1/10W
R6104	1-240-205-11	CARBON	22M	5%	1/2W
R6105	1-216-097-11	RES-CHIP	100K	5%	1/10W
R6106	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6107	1-216-089-91	RES-CHIP	47K	5%	1/10W
R6108	1-215-493-00	METAL	1M	1%	1/4W
R6109	1-216-041-00	RES-CHIP	470	5%	1/10W
R6300	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6301	1-249-413-11	CARBON	470	5%	1/4W
R6302	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6304	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6305	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6306	1-216-041-00	RES-CHIP	470	5%	1/10W
R6307	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6308	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6309	1-249-417-11	CARBON	1K	5%	1/4W
R6310	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6311	1-215-477-00	METAL	220K	1%	1/4W
R6312	1-249-417-11	CARBON	1K	5%	1/4W
R6313	1-216-097-11	RES-CHIP	100K	5%	1/10W
R6314	1-216-385-11	METAL OXIDE	0.47	5%	3W
R6316	1-215-477-00	METAL	220K	1%	1/4W
R6317	1-249-417-11	CARBON	1K	5%	1/4W
R6318	1-215-453-00	METAL	22K	1%	1/4W
R6319	1-215-476-00	METAL	200K	1%	1/4W
R6320	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R6321	1-208-822-11	METAL CHIP	47K	0.5%	1/10W
R6322	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6323	1-216-041-00	RES-CHIP	470	5%	1/10W
R6324	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6325	1-208-819-11	METAL CHIP	36K	0.5%	1/10W
R6326	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R6327	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
R6328	1-215-906-11	METAL OXIDE	15	5%	3W
R6329	1-208-807-11	METAL CHIP	11K	0.5%	1/10W
R6333	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R6334	1-216-041-00	RES-CHIP	470	5%	1/10W
R6335	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R6336	1-208-802-11	METAL CHIP	6.8K	0.5%	1/10W
		<RELAY>			
RY6000	⚠1-755-352-11	RELAY, AC POWER			
		<TRANSFORMER>			
T6001	⚠1-424-436-11	TRANSFORMER, LINE FILTER			
T6002	⚠1-424-436-11	TRANSFORMER, LINE FILTER			
T6003	1-431-445-11	TRANSFORMER, CONVERTER (PFT)			
T6004	⚠1-435-443-11	TRANSFORMER, CONVERTER (PIT)			
T6005	⚠1-435-445-11	TRANSFORMER, CONVERTER (PIT)			
T6100	⚠1-433-844-11	TRANSFORMER, CONVERTER			
		<THERMISTOR>			
TH6100	1-803-586-41	THERMISTOR			
		<VARISTOR>			
VD6001	⚠1-803-830-31	VARISTOR (ERZV14D621)			
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		MISCELLANEOUS			
		**********			
	⚠1-223-925-71	RESISTOR ASSY (HIGH-VOLTAGE) (FORCUS PACK)			
	⚠1-452-790-41	NECK ASSY (NA-295)			
	1-528-864-11	BATTERY, SOLAR			
	1-543-982-11	CORE, FERRITE			
	1-544-880-11	SPEAKER (13 CM)			
	*1-555-110-00	CABLE, PIN			
	⚠1-765-286-11	CORD, POWER (44PS2/51PS2)			
	⚠1-776-860-11	POWER CORD, FILTER (UK) (44PS2U)			
	1-790-082-11	CABLE, RF			
	⚠8-598-955-13	BLOCK ASSY, HIGH-VOLTAGE HVB-1030			
	⚠8-733-571-35	PICTURE TUBE 07MXC2 (R) (NEW GUN) (44PS2/44PS2U)			
	⚠8-733-572-35	PICTURE TUBE 07MXC3 (R) (NEW GUN) (51PS2)			
	⚠8-733-574-15	PICTURE TUBE 07MAC2 (B) (C/D CPL) (44PS2/44PS2U)			
	⚠8-733-575-15	PICTURE TUBE 07MXC3 (B) (C/D CPL) (51PS2)			
	⚠A-1501-273-A	SEAL (G) ASSY, MECHANICAL			
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		ACCESSORIES AND PACKING MATERIALS			
		**********			
	*4-030-895-01	JOINT			
	*4-055-672-01	BAG, PROTECTION			
	*4-055-673-01	SHEET, PROTECTION			
	*4-076-544-01	TRAY (51PS2)			

REF.NO.	PART NO.	DESCRIPTION	REMARK
*	4-076-552-01	BOARD, TOP (51PS2)	
*	4-076-553-01	BOARD, BOTTOM (51PS2)	
*	4-080-525-01	INDIVIDUAL CARTON (44PS2/44PS2U)	
*	4-080-526-01	TRAY (44PS2/44PS2U)	
*	4-080-527-01	BOARD, TOP (44PS2/44PS2U)	
*	4-080-528-01	BOARD, BOTTOM (44PS2/44PS2U)	
*	4-080-529-01	CUSHION UPPER (44PS2/44PS2U)	
*	4-080-530-01	CUSHION LOWER (44PS2/44PS2U)	
*	4-080-536-01	CUSHION LOWER (51PS2)	
*	4-080-549-01	INDIVIDUAL CARTON (51PS2)	
*	4-082-182-01	CUSHION UPPER (51PS2)	
	4-082-171-11	MANUAL, INSTRUCTION (ENGLISH, GERMAN, ITALIAN, FRENCH, DUTCH, GREEK, TURKISH) (44PS2/51PS2)	
	4-082-171-21	MANUAL, INSTRUCTION (SPANISH, PORTUGUESE, DANISH, NORWEGIAN, SWEDISH, FINNISH) (44PS2/51PS2)	
	4-082-171-31	MANUAL, INSTRUCTION (ENGLISH)	(44PS2U)

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REMOTE COMMANDER
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	1-476-360-11	REMOTE COMMANDER (RM-903)	